

# MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

VOL. 10. No. 36.  
WEEKLY.

BALTIMORE, FEBRUARY 5, 1887.

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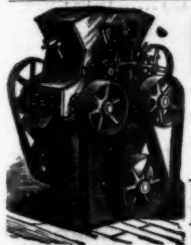
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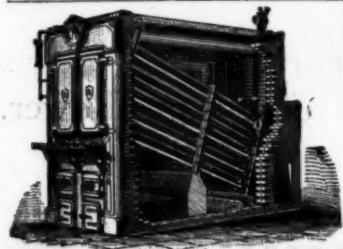
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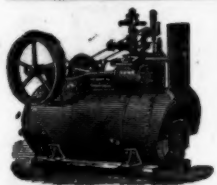
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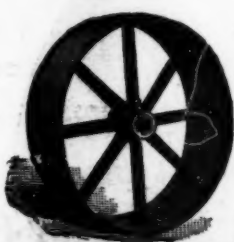


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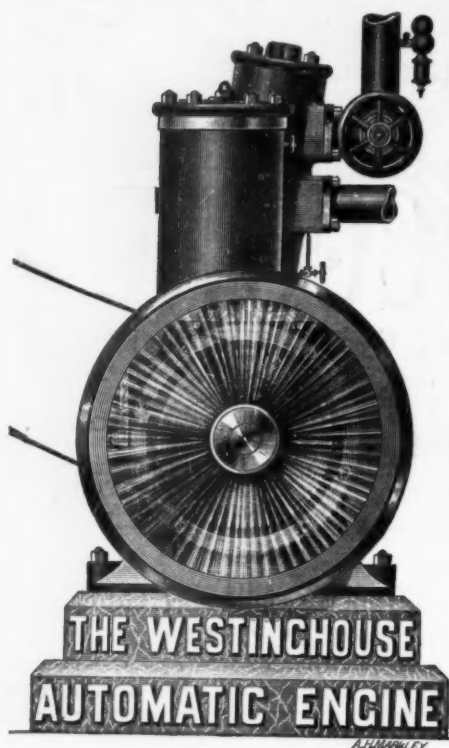
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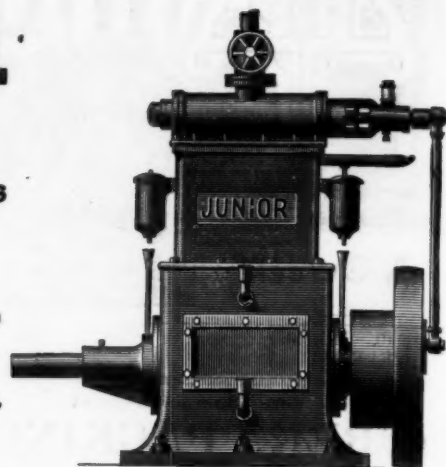
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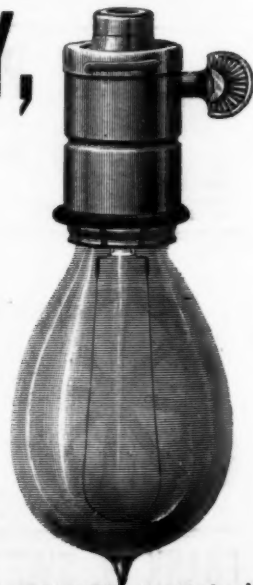
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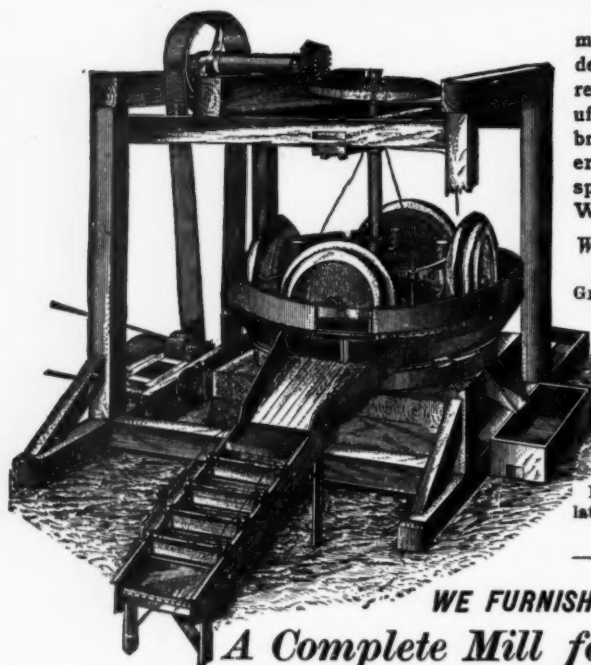
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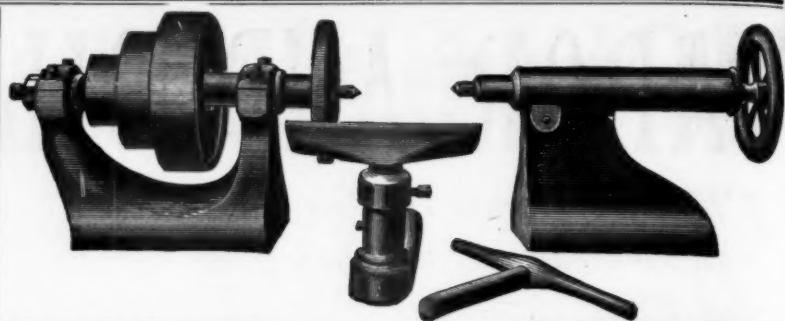
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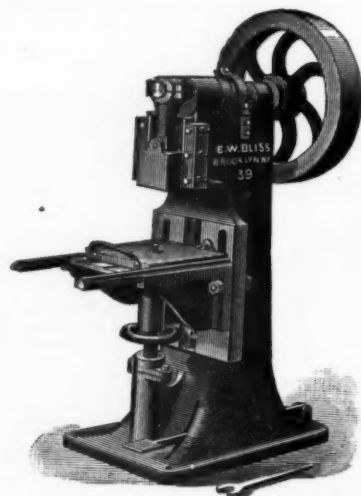
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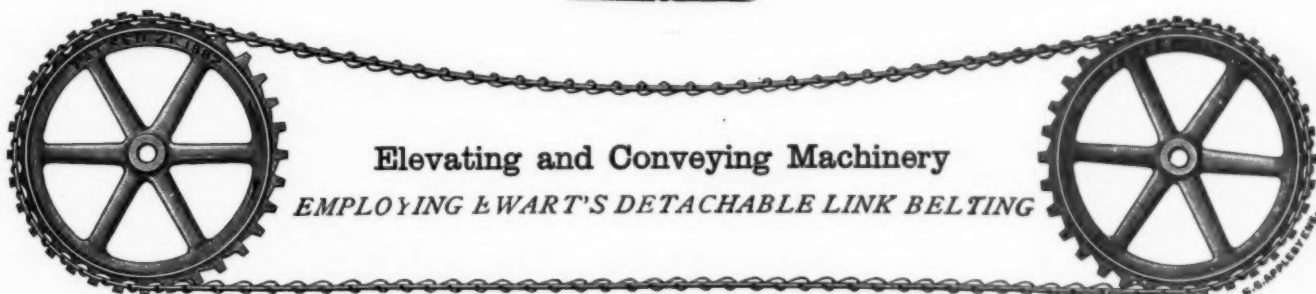
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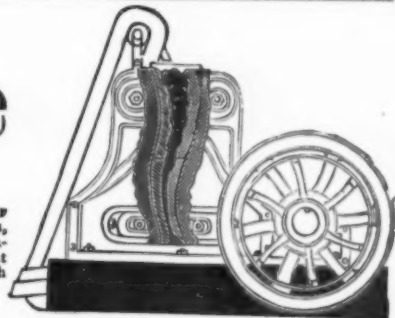
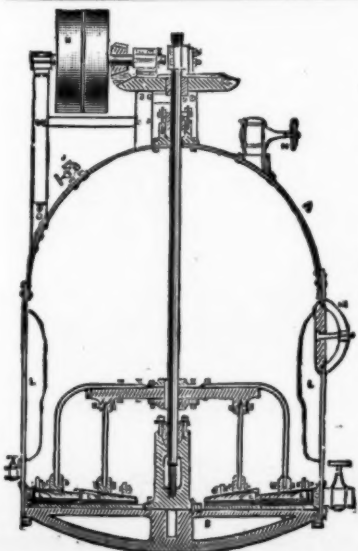
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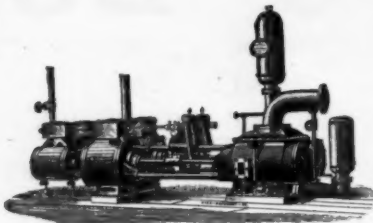
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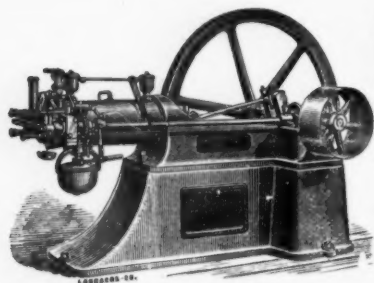
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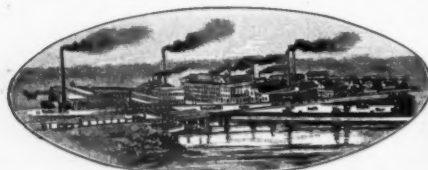
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BALTIMORE, FEBRUARY 5, 1887.

## Production of Pig Iron in 1886.

We have already given the estimated production of pig iron in the United States in 1886, as made by Mr. James M. Swank, Secretary of the American Iron & Steel Association. The full returns of the year are now at hand, and from his report we compile the following figures:

The production of pig iron in the whole country in the last six months of 1886 amounted to 3,412,479 net tons of 2,000 pounds, or 3,046,856 gross tons of 2,240 pounds. Our production in the first six months of 1886 was 2,954,209 net tons, or 2,637,687 gross tons. The increase in the last six months was 458,270 net tons, equal to 409,169 gross tons, or 15 per cent. The production in the last four half years was as follows, in both net and gross tons:

	Net tons.	Gross tons.
First half of 1885.....	2,150,816	1,920,372
Last half of 1885.....	2,379,053	2,124,134
First half of 1886.....	2,954,209	2,637,687
Last half of 1886.....	3,412,479	3,046,856

The total production of pig iron in the United States in 1886 was 6,366,688 net tons, or 5,684,543 gross tons. The total production in 1885 was 4,529,869 net tons, or 4,044,526 gross tons. The increase in 1886 was 1,640,017 gross tons, or over 40 per cent. At first sight, it would seem that such extraordinary progress in the manufacture of pig iron in this country could never before have been made in one year, but statistics show that we made virtually as great progress in the boom year 1880, when we made 3,835,191 gross tons, which was an increase of 1,093,338 gross tons over the production of 2,741,853 gross tons in 1879, or nearly 40 per cent. This is a remarkable coincidence. It may as well be confessed now that 1886 was itself a boom year like 1880, with this difference, however, that our people "lost their heads" in 1880 and kept them in 1886. The production of pig iron in this country in each year from 1880 to 1886 was as follows, in both net and gross tons:

Years.	Net tons.	Gross tons.
1880.....	4,295,414	3,835,191
1881.....	4,041,564	4,144,254
1882.....	5,178,122	4,623,323
1883.....	5,146,972	4,595,510
1884.....	4,589,613	4,097,868
1885.....	4,529,869	4,044,526
1886.....	6,366,688	5,684,543

Our production of pig iron in 1886, classified according to the fuel used,

was as follows, in net tons, compared with the production in 1884 and 1885:

Fuel used.	1884.	1885.	1886.
Bituminous.....	2,544,740	2,675,635	3,806,174
Anthracite.....	1,586,453	1,454,390	2,099,597
Charcoal.....	458,418	399,844	460,917

In 1885 the South made 712,835 tons of pig iron, and in 1886 876,539 tons, a gain of 163,704 tons. This increase is doubtless less than had been expected by many who have overlooked the fact that the many new furnaces in the South of which so much has been heard lately have not, with one or two exceptions, been completed. It will, in fact, be late in 1887 before many of them blow in, and the full effect of the building of these many furnaces will not appear in the statistics of iron production until towards the end of 1887 and the early part of 1888. Then we will find an enormous increase in the amount of iron turned out in the South. The production of pig iron in 1885 and 1886 compares as follows:

STATES.	1885.	1886.	Increase.
Maine.....	440	5,060	4,620
Massachusetts.....	869	8,194	7,325
Connecticut.....	17,500	19,390	1,890
New York.....	160,137	233,618	73,481
New Jersey.....	73,667	157,886	84,219
Pennsylvania.....	2,445,496	3,293,298	847,792
Maryland.....	17,209	39,502	22,293
Virginia.....	163,782	158,250	-5,532
North Carolina.....	1,790	2,200	410
Georgia.....	32,924	46,490	13,566
Alabama.....	227,438	283,859	56,421
Texas.....	1,843	3,250	1,407
West Virginia.....	69,007	98,618	29,611
Kentucky.....	37,553	54,844	17,291
Tennessee.....	161,199	300,526	139,327
Ohio.....	553,963	908,094	354,131
Indiana.....	6,634	16,660	10,026
Illinois.....	327,977	501,795	173,818
Michigan.....	143,121	190,734	47,613
Wisconsin.....	24,632	65,933	41,301
Missouri.....	51,468	74,593	23,125
Colorado.....	5,481	10,451	4,970
Oregon.....	3,832	.....	-3,832
California.....	.....	1,750	1,750
Washington Territory.....	1,857	2,842	985
Total.....	4,529,869	6,366,688	1,836,819

Every State which produced pig iron in 1885 increased its production in 1886, except Virginia and Oregon. The decline in Virginia was very slight, and was almost wholly in charcoal pig iron. Pennsylvania shows a great increase and so does Ohio. Pennsylvania made in 1886 over 50 per cent. of the country's total production of pig iron.

The stocks of domestic pig iron on hand and unsold in the hands of manufacturers or their agents on the 31st of December, 1886, aggregated only 249,504 net tons. At the close of 1885 they amounted to 416,512 net tons. Low as the stocks were at the close of 1886, statistics show that they have been lower at the close of two recent years. At the close of 1879 they amounted to 141,674 net tons, and at the close of 1881 they amounted to 210,896 net tons. The statistics of stocks unsold do not include pig iron sold and not removed from the furnace bank, nor pig iron in the hands of speculators, brokers or creditors.

THE report of the Eagle and Phoenix Cotton Mill, of Columbus, Ga., shows a profit of 14 per cent. on the capital stock. The Swift Manufacturing Co., of the same place, propose to enlarge their cotton mill at an expense of about \$100,000.

**☞ If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$3.00 a year.**

## Self-Sacrificing Southern Iron Makers.

In a late interview Mr. Thomas Hobson, the Philadelphia manager of the Iron Age, in denying certain statements in the Atlanta Constitution, as to the commanding influence of Southern iron, made the following unjust remarks:

The statements that the companies are making enormous profits are so ridiculous and grossly inaccurate as to be beneath serious consideration. Why, we know that nearly all of them have passed through receivers. Of course, they are now making money and are prosperous. Some of these companies have their stocks listed in New York, and this may really be a bare-faced attempt to bring in the lambs.

Commenting on this Bradstreet's says:

"It is true that Pennsylvania has not suffered seriously from Alabama's rivalry; perhaps she is not destined to. But statements like those last quoted, containing only a grain of fact, are certainly not to the point. In reply to the charge that when Southern pig iron did come to Philadelphia (and by inference to New York, Pittsburgh and Providence?) 'it was always sold at a loss,' it remains only to be added that in the South there are evidently a very self-sacrificing community of pig iron makers. Bradstreet's successive annual reports of shipments of Southern pig iron to Pittsburgh, Philadelphia, and north and east thereof, show the following totals:

Tons.....	1883.	1884.	1885.	1886.
	58,000	102,500	99,000	140,000

Evidently these were philanthropic Southern pig iron makers, to have always sold in Eastern markets at a loss."

Not only must these Southern iron makers have been very philanthropic as Bradstreet's says, but their bank account must have been almost unlimited. They lost on every ton shipped North did they? Well, its strange that they kept on shipping and not satisfied with the amount they were producing, kept on enlarging furnaces and building new ones. If they were all losing money last year how was it that the Sloss Company, of Birmingham, managed to make a net profit that year, according to the statement of Mr. Jos. F. Johnston, the president, of \$330,000.

Of all the silly talk we have ever heard, we know of nothing more silly than that of Mr. Hobson and others, who are trying to delude themselves into the belief that Southern furnaces cannot make iron at prices that leave a fair profit even during such periods of extreme depression as that through which we have lately passed. As bearing on this question the following statement made several ago by Hon. Abram S. Hewitt, of New York, in referring to Alabama, is of interest:

"It is the only place," said he, "upon the North American continent where it is possible to make iron in competition with the cheap iron of England, as measured not by wages paid, but by the number of days' labor which enter into its production. The cheapest place on the globe until now for

the manufacture of iron is the Cleveland district, in Yorkshire, England. The distance of the coal and iron from the furnaces there averages about 20 miles. Now, in Alabama the coal and the ore are in many places within half a mile of each other. This region, so exhaustless in supplies, so admirably furnished with coal, so conveniently communicating with the Gulf, will be of infinitely more consequence to us for its iron than it has ever been for its cotton. I think this will be a region of coke-made iron on a scale grander than has ever been witnessed on the habitable globe."

## Trying to Bolster up Free Trade.

We must confess our great surprise that so reputable a newspaper as the Charleston News and Courier for the sake of bolstering up the fast dying free trade cause in the South, would misrepresent those who favor protection. The unanswerable statistics given in the MANUFACTURERS' RECORD of January 22, showing that since 1873 the decline in the value of what the farmer sells had been largely more than counterbalanced by the decline in the manufactured goods that he buys, were so convincing that the News and Courier did not attempt to reply to them. And entirely omitting the slightest reference to this part of the case, it presented only the side showing what had been the decline in what the farmer sells, thus striving through a false argument to convince its readers that protection is a great curse to farmers. Is it possible that our free trade friends find it necessary to bolster up their cause by such efforts as this? Surely they only convince the world that they are left without any sound arguments against protection.

The News and Courier only a few weeks ago published an elaborate review of the condition of the industrial and agricultural interests of South Carolina, in which it claimed that the farmers of that State had made remarkable progress of late years. But now when it comes down to fighting protection it says that the life is being squeezed out of the farmers. How can it reconcile the two statements?

THE New Orleans Picayune celebrated its semi-centennial January 25, by issuing a 16-page paper, in which a complete history of that journal was given, accompanied by biographical sketches of those who have been connected with it as publishers and editors. The Picayune well merits the great success which has attended its publication, and we extend our hearty congratulations upon its magnificent semi-centennial issue.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.



### The Courier-Journal and Its Mistakes.

The Louisville Courier-Journal devotes a couple of columns to the statistics given in the MANUFACTURERS' RECORD of January 22, showing the decline in the value of merchandise of all kinds since 1873, but entirely fails to meet the only point that we were seeking to make in the article in question. The Courier-Journal had pointed out the heavy decrease in the value of what the farmer sells, contrasting the prices received for his products in 1873 and 1887, using this as an argument against protection, and then, after showing how great this decline had been, it said:

"But are they getting their iron and steel wares any cheaper? their plows, axes, nails, drugs, clothing, etc.? Any man among them may answer. The tariff people would answer them in very plain terms—not if they know it!"

Here was a distinct statement that while the farmer now sells his produce at much lower prices than in 1873, there had been no reduction in the cost of his hardware, clothes, &c. On this point we took issue, and compiled, not from the books of any private firm, as the Courier-Journal claims, but from the files of the Baltimore Journal of Commerce, which for 36 years has been the recognized authority on the Baltimore markets, the selling price in 1873 and 1887 of 55 leading articles of merchandise, from dry goods and groceries to steel rails. We took the two years, 1873 and 1887, that the Courier-Journal was using in its illustration and we proved that in these 55 articles the average reduction in price had been 59.3 per cent., and using its own figures as to the value of the cotton crop of 1873 and 1886, we showed that the average decrease in value per pound was 48 per cent. Driven from its own ground, that there had been no reduction in the cost of what the farmer buys, the Courier-Journal now seeks to obscure the whole matter by a very learned dissertation on gold values and greenback values and the price of goods in England in 1873 and 1887, and is quite ready to admit that there has been some decline in what the farmer buys, its previous statement to the contrary notwithstanding. It is not quite willing, however, to admit that the decline has been as great as we proved, but only a week or so ago it was declaring that there had been no decline. This is coming around about as rapidly as could be expected. The Courier-Journal, not willing to take a comparison of prices of merchandise in this country in 1873 and 1887, prefers to go over to its beloved free trade England and compare the prices in that country for these two years. It there finds that the decline has been less than what we gave for this country, and on that it bases its arguments, seemingly oblivious of the fact that there may have been a relatively greater decline in the value of manufactured goods in this country

than in England, due to the operations of a wise protective system that has developed vast manufacturing industries in this country and in this way has cheapened the cost of manufactures.

The Courier-Journal further says:

"One of the most remarkable features of the times is the inexplicable and even wonderful pause in the progress of expansion of the Southern manufacture of cotton, that great staple which is still King of the world's commerce and the supreme physical arbiter of Southern prosperity. Has there been a single mill erected in the South in all this so-called boom period? Not one. There has been an absolute pause in the growth of this great interest in the South, where, of all parts of the world, are most generously combined the natural conditions peculiarly fitted for its empire."

On this subject as on the question of the decline of values the Courier-Journal is again wrong. Owing to the great depression throughout the world in cotton manufacturing, cotton mill building in the South temporarily slackened up, but with the general improvement in business, there is a decided revival in this industry. It says that there has been an absolute pause in this industry and that not a single cotton mill has been "erected in the South in all this so-called boom period." Well, let us see. At Lexington, N. C., Wm. E. Holt has nearly completed a large cotton mill, which has been under construction for some months. During the same time E. H. Coates & Co. have built a 10,000 spindle mill at Augusta, Ga. The Holts, who have been so long identified with cotton manufacturing in North Carolina, have put up another mill at Company Shops in that State; at Gibsonville, N. C., a new mill has been erected; at Randleman in the same State one has been put up, and at High Point another has gone up. Machinery is being purchased for a \$100,000 cotton mill at Asheville, N. C., and for one at Shelby; and at Mt. Airy another is to go up at once. At Gadsden, Ala., a mill will be built, the company having been formed; at Gainesville, Ga., a new \$50,000 company will build a mill; at Columbus, Ga., the Swift Manufacturing Co. will enlarge their mill, at an expense of \$100,000; while the Eagle & Phoenix Mill, of the same city, now running 50,000 spindles, expect to build an additional mill, to cost about half a million dollars; two mills—one to cost \$200,000 and the other \$125,000—have been contracted for at Decatur, Ala. All through the South old mills are putting in new machinery at a cost running from \$10,000 up to \$40,000 and \$50,000. The Eagle & Phoenix Mills, for the year just ended, show profits of 14 per cent.; the Tuscaloosa Mills, of Tuscaloosa, 20 per cent.; the Tallassee Falls Manufacturing Co., 10 1/2 per cent. on \$500,000 capital, one-half of which will go into new machinery; the Sumter Cotton Factory, of South Carolina, 17 per cent.; while others are likewise making very satisfactory profits.

Notwithstanding the Courier-Jour-

nal's wild statement about not a single cotton mill having been built in the South during this boom period, it will be seen that this industry has been moving along at a pretty good rate. The revival in trade struck the iron interests first, and hence we have seen its effect there first; it is now spreading to the cotton industry, and in a short time new cotton mills will be going up all over the South.

The Courier-Journal would find it profitable to be a little more careful in making wild assertions, as it would then be saved the unpleasant experience of having to admit so many mistakes.

### "Noah Fogy's" Letter.

He is not dead. No, the old Fogy still lives or exists, but there is not much of him, in him, or to him, and we seldom hear from him since the war. And where do you suppose the old Fogy lives? Well, one has just emerged from his hiding place down in North Carolina. Like the ground hog, which came out of his hole on Candlemas Day and saw his shadow, not liking the sunlight, gives a grunt and returns to his slumber.

The communication with the caption "The Other Side" and signed "Noah Fogy," we are sorry to say comes from the old North State, whose sons have so much to be proud of in her history from the days of the Mecklenburg Independence down to the present. While the writer assumes a "jocular style," as he assures us in a private note, yet there is, he says, an under-current of earnestness, which shows that our North Carolina friend really imagines that he has a grievance, namely, that "things are not what they seem" and that "times ain't as they used to was." Still we have hope for "Noah Fogy," from the simple fact that he is ashamed to give his "local habitation and name" in his communication for publication, although, of course, he does in his private note.

That "Noah" does not truly represent the sentiment of his grand old State we are more than convinced, as our readers must be who weekly gather from these columns overwhelming proofs of the enterprise and industry of the men and women of North Carolina. That there are some sections of the State, however, where the sluggard needs arousing, we gather from the following editorial paragraph found in the Carthage Pine Tree Blade of last week:

In almost every exchange we see articles boasting of the railroad and telegraphic facilities such and such towns possess, and yet here our people set, with brains, means and money at their command, trying to live and do business without these facilities. It seems that it is to forever be our lot to have the name of "Old Rip Van Winkle" thrown at us. Let us try to awaken from our long sleep and move onward with the march of progress. If we do not we may shortly be rudely awakened to the fact that the outside world has forgotten that we exist.

If there is anybody else in the South, who, like Noah, objects to

railroads and other improvements, who wants to starve the preachers and to worship in a log house, he had better emigrate. The South doesn't need him. It's no place for him, and in the rapid progress of that section, in material affairs as well as in religious and educational, the old Fogy will be very lonesome. Like the Western trapper, who, finding civilization pressing too closely upon him when neighbors get to be as near as 15 or 20 miles away, plunges farther into the wilderness, so Noah Fogy would do well to pack up and move to some more congenial home.

### The Logging Railroads of the South.

In an examination of the statistics of the railroads of the country owned and operated by lumber men, and used in hauling lumber, as compiled by the Northwestern Lumberman, of Chicago, we are surprised to find that largely more than one-half of the mileage of logging railroads in the country is in the Southern States. The total for the entire country is as follows:

SOUTHERN STATES.	BALANCE COUNTRY.
No. miles.	No. miles.
Alabama..... 146	California..... 144
Arkansas..... 104	Michigan..... 278
Florida..... 176	Minnesota..... 3
Georgia..... 225	Missouri..... 31
Kentucky..... 44	Nevada..... 8
Louisiana..... 35	New Hampshire..... 10
Maryland..... 13	Ohio..... 18
Mississippi..... 65	Oregon..... 7
North Carolina..... 117	Pennsylvania..... 166
South Carolina..... 170	Utah..... 2
Tennessee..... 51	Vermont..... 4
Texas..... 153	Washington Terr'y..... 100
Virginia..... 50	Wisconsin..... 56
West Virginia..... 22	
Total..... 1,371	Total..... 897

Michigan, of course, leads with 278 miles of logging roads, but Georgia is second, Florida third, and South Carolina fourth, with Pennsylvania fifth. With the great development of the South's lumber interests now in progress, the mileage of logging roads in that section will be largely increased.

### Increasing Foreign Trade of Southern Ports.

Some months ago we gave a comparison of the value of foreign exports from Southern ports during a part of 1886, and for the corresponding time of 1885, showing a very decided gain, while at the Northern ports there had been a decrease. We now have the official figures of the exports from all United States ports for 1886, and comparing these with the figures for 1885, we have a surprisingly good showing for the Southern ports.

Ports.	Value of Exports from Southern Ports During	
	1885.	1886.
Baltimore.....	\$46,810,388	\$34,748,264
Charleston, S. C.....	17,410,236	15,158,619
Galveston.....	16,094,106	15,878,542
Mobile.....	9,614,550	3,114,457
New Orleans.....	81,355,876	77,902,389
Norfolk.....	15,205,020	10,341,749
Savannah.....	21,604,832	18,074,651
Wilmington, N. C.....	5,951,103	4,358,771
Yorktown, Va.....	5,084,591	1,653,007
Total .....	\$214,031,602	\$180,528,449

Now, comparing the value of exports from the leading Northern ports during 1886 and 1885, we have:

Ports.	1885.	1886.
Boston.....	\$58,527,008	\$54,321,579
New York.....	318,112,831	331,257,464
Philadelphia.....	33,659,574	37,332,000
Portland, Me.....	2,563,623	4,100,285
Total.....	\$412,863,036	\$427,012,228



The increase in the value of foreign exports from the Southern ports was nearly \$34,000,000, against a decrease from the Northern ports of \$14,300,000.

Baltimore shows an increase of \$12,000,000; Charleston, \$2,300,000; Galveston, \$1,000,000; New Orleans, \$4,000,000; Norfolk, \$5,000,000; Savannah, \$3,600,000; Wilmington, \$1,600,000; and Yorktown, which includes Newport News, \$4,400,000. At New York there was a decrease of \$13,000,000, Philadelphia, \$3,700,000; and Portland, Me., \$1,600,000; while Boston alone of the Northern ports shows an increase, the gain there being \$4,000,000.

### The Folly of Jealousy.

A correspondent of a Northern paper, writing from Chattanooga, gives the following as a sample of the spiteful way in which some of our Southern cities speak of the prosperity of each other: "If I were a Birmingham man and owned real estate there," remarked a Chattanooga citizen yesterday, "I'd go to bed with my boots on, in order to get out early when the day of the great crash comes." "Well, now, it strikes me," replied a Knoxville listener, "that it would be a mighty good scheme for you Chattanooga folks, right here at home, to keep a handy pair of slippers under the bed." Such a spirit as is indicated by the above is unworthy of any man or community, and we regret to see that there is a great deal of it cropping out in the journals of many rival towns in the South. If we can't get up a boom for ourselves, let us at least help on and rejoice with those who are more fortunate. There is room for all, and to spare, and the prosperity of one town or city is a help rather than a hindrance to others. We like to see a generous and active rivalry between two cities or sections, but such spiteful feelings as are exhibited by some localities towards others is greatly to be deprecated and severely condemned.—Lynchburg Virginian.

The Virginian has struck the right note. There is entirely too much of this miserable spirit of jealousy. Instead of this, there ought to be emulation. The progressive towns like Birmingham, Anniston, Chattanooga, Decatur and many others, should stimulate those who have not yet joined the procession to renewed exertions to develop their industrial and commercial interests, but there should be no room for envy and jealousy.

### Why the South is Dropping Free Trade Ideas.

The South is giving up its free trade notions.—Covington Commonwealth.

We are forced to admit that there is a large admixture of truth in the above statement. That the South is giving up its free trade sentiments is due to the division of the party on this doctrine, and to the cowardice of the party in not boldly and clearly coming out on this issue.—Crittenden Press.

The Democratic party has shown its good sense, not its cowardice, in failing to press free trade upon the public consideration. The country will not have free trade. No Democratic convention has ever declared for it. No Democratic convention ever will.

If our respected contemporary would look a little deeper into the question he would find a better reason for the decadence of free trade ideas in the South. Manufacturing establishments are being built up all over the South. A manufactory is the inevitable foe of free trade. The South prides itself upon its new and booming industries, and, as a matter of course, is dropping free trade ideas.—Covington (Ky.) Commonwealth.

### A Farmers' Convention.

[Special correspondence MANUFACTURERS' RECORD.]

RALEIGH, N. C., Jan. 29, 1887.

Within the last two weeks the farmers of North Carolina have held two conventions, in which matters of grave importance were discussed. The first was called by Governor Scales, as chairman (ex officio) of the State Board of Agriculture. The law regulating that institution provides that the board may, at its pleasure, hold open sessions and invite all citizens to participate in its deliberations. This permissive provision of law was enacted in order that the governing body of the department might, as occasion should require, call the public into its counsels and ascertain from the farmers what they wished it to do. It was supposed that such open sessions would make the department popular and add to the practical value of its work. The meeting of last week was an experiment that proved, by the large attendance it called out and the interest taken in its proceedings, that the law was wise. Many farmers had an opportunity to air their supposed grievances and improved it, while others, more practical, offered suggestions which were discussed and adopted, looking to the progress of the State. Among these resolutions were two of paramount importance. One called upon the legislature to cause to be printed a large edition of the complete proceedings of the Settlers' Convention, held in this city last autumn. The other requested the General Assembly to provide by statute for the establishment of savings banks in this State, and surround them with those safeguards that had been found necessary in other States where savings institutions have long existed. Other measures recommended by this body were intended to increase the value of the department to the agriculturists of the State—the one of most consequence asking for such a change of the membership of the board as that none but practical farmers should have aught to do with its administration. The purpose of this was to remove from the board the president of the University of North Carolina, the master of the State Grange and the president of the State Agricultural Society, those officers being now by law ex-officio members of the board. The principal controversy was over this proposition. It was finally settled by referring this and all other questions that had been discussed to a select committee, with instructions to formulate the views of the convention on these matters, and to present them to the Farmers' Mass Meeting that was to assemble the next week.

Last Wednesday that convention met in this city. The suggestion out of which it grew was made by Col. Burgwyn, of Henderson, a lawyer, banker, and farmer, who is profoundly interested in agriculture and horticulture, as well as in all other lines of industry and progress. That gentleman's letter, published in the Progressive Farmer, was indorsed by various farmers clubs, and a formal call sent out through the press. Very many farmers responded. It is said by men who have attended such gatherings for years to have been the most able as well as the largest gathering of the kind they remember. Metropolitan Hall, the largest in the city, was filled. The audience was fairly representative of the farmers of all sections of North Carolina. It was apparent at the beginning that there were very earnest men there of quite opposite opinions, and that unless the leaders of thought on either side were wise, the convention might do more harm than good. Fortunately, they were wise and prudent, and succeeded in keeping the discussions within proper bounds. Resolutions covering many subjects were introduced and referred to appropriate committees, of which there were nine of five members each. Most of the hard work of the convention was done by them. The great event of the convention was the admirable address of ex-Governor Thos. J. Jarvis, now

United States minister to Brazil, who is enjoying his vacation. Invited to visit the convention by its unanimous vote, he appeared before it and delivered one of those telling and statesmanlike addresses for which he gained much fame in his own State, and in 1883 in New England also. His theme was conservative progress, building up with care and discretion instead of destroying the Commonwealth. It was a plea for intelligent and careful advances on all lines of industry, and was illuminated with those happy sayings and quaint illustrations that give a zest to all Governor Jarvis says in public.

After a two days' session this convention adjourned, leaving to a committee of intelligent men the duty of presenting to the legislature the demands of the farmers and asking for such action as they think necessary. These demands are in part that all ex-officio members of the Board of Agriculture, except the Governor of the State shall be left off hereafter; that the nine members (one from every Congressional district) shall be practical farmers; that the duties now required of the chemist of the agricultural experiment station shall be limited to what relates to agriculture, while the determination of the value of minerals, of the quality of mineral waters and of many other things shall be transferred to the laboratory of the State University. The legislature is asked to establish the general law respecting savings banks, as heretofore referred to, and to make many other provisions for the advancement of agricultural interests.

Before adjourning the convention resolved itself into a permanent association, ably officered. B. S. P.

### Bristol's High Hopes.

[Special correspondence MANUFACTURERS' RECORD.]

BRISTOL, JAN. 25, 1887.

Our town is on a "regular boom," in fact this whole section of country is in a high state of excitement over the many enterprises that are being established. Real estate has advanced 25 to 50 per cent. in the last 30 days, and all those who are disposed to sell can find ready purchasers. Individual citizens offer ten thousand dollars to the first party or firm who will locate here and build a hundred ton furnace. Several very important enterprises are projected. The great advantages of this town are just beginning to be recognized. The building of the South Atlantic & Ohio Railroad to Elizabethton, Tenn., to connect with the road to Cranberry, N. C., opens up for Bristol a wide and extended field for inducing manufacturers to locate here, as then the coal and coke from the inexhaustible fields of southwest Virginia, on the line of the South Atlantic & Ohio Railroad, will meet the iron from North Carolina, as it will be obliged to break bulk here, as one end of the road is a narrow gauge. Then Bristol will go up as if by magic, and she will soon realize what she has long hoped for and expected, a city of no small magnitude.

Our tobacco interest is rapidly growing every day and already this season our warehouses have sold over a million and half pounds. Maj. A. D. Reynolds, one of our largest plug and twist manufacturers has purchased a large building heretofore used as a woolen mill, and will at once put in the necessary machinery and start a smoking tobacco factory, in addition to his other large tobacco works. A party from New York is negotiating for a site to erect a large building for the purpose of manufacturing stoves, &c. Work was begun here to-day on the large veneering establishment of Aldrich & Co. A new bank will open up for business about the middle of February. Many other very important enterprises are on foot, such as gas works, water works, street railways, &c. M. D. A.

If you are not already a subscriber to the BALTIMORE MANUFACTURERS' RECORD, send us \$3 and you will receive irregularly for one year, or six months for \$1.50.

### The Other Side.

Mr. Editor—The MANUFACTURERS' RECORD is a live, progressive paper, but it lacks variety. Your editorials are all on one side. Now one of our little boys says he "loves Aunt Sal, because she always puts spice in her apple pies." You need a little spice in your weekly pie. Southern brag makes a big swell; but solid flesh is better than a bloat.

Let us look at the condition of

#### OUR FARMERS.

Last year, wheat was almost a failure. Lowland corn was washed away. Cotton and tobacco are very low, while the wages of farm hands are as high as ever. Hundreds of our farmers did not make enough to pay for the sand bag fertilizers they bought on credit. You say pepper has fallen from 19 to 16 cents; what good does that do us when merchants still make us pay 40 cents? But if pepper should come down to 10 cents, and we have no dimes, how can we get it?

You say we are building new towns. Well, these draw labor from the country, and increase the number of those engaged in whittling goods boxes. But is there any good in

#### IMMIGRATION?

Almost every immigrant comes with a patent trick for making a living without hard labor. He could have staid at home, and made a living by work; but he heard of St. Patrick and our golden gates, and so he came, and tells our boys how to get rich by good management without work. Some wealthy men do come among us, with dogs and guns. They ship "dog food" from the North, and make our hotels furnish them with Northern lard, Northern beef and Northern canned fruits. Then they kill our birds, and send them North, leaving the bugs to eat our cabbage during the whole summer.

But we do have

#### SPLENDID MINES.

Yes, when my grandfather was a little boy, we were about to dig fortunes out of our coal mines, just as we are now. Did you ever see an exploded gold mine? What a dismal, doleful place! Even the bats fly around it. But a miner buys it, forms a company, plants machinery, uncovers ore, and traps some man with money. Then a dull season ends in explosion. "At uno dice omnes." You tell of the plants, the machinery and the ores; but do you ever describe the deep desolation of an exploded mine? My neighbors say a meadow is worth more than a mine.

Well, we certainly have new

#### RAILROADS.

O yes, but we tax ourselves to grade them, and furnish cross ties for nothing. Then Northern men own the roads and make the money. We make hay, raise colts and have horses to sell. Of what use is a railroad to us? We love to ride our horses, because we go when, where and as we please. But on a train we go where the engine carries us, and can't even stop at a watermelon patch.

So far as I know only one product of the farm has increased in price. That is cotton seed. Yes, just as soon as I taught my cows to eat them, the price went up.

They tax our whiskey and tobacco, and send millions to Washington to pension the backbone out of able-bodied men, who would be better off if they had no "spree money," and had to work for a living.

Even the gospel costs high in our country. We must have organs, carpets, steeples, turrets and horns, while the preachers want store-clothes, Northern buggies and Baltimore trotters, to say nothing of fat chickens and sweet pies.

Mr. Editor, what will become of us?

NOAH FOGY.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the MANUFACTURERS' RECORD.



# CONSTRUCTION DEPARTMENT.

OUR Construction Department today conveys some idea of the great industrial activity throughout the South. We devote nearly five entire pages to particulars regarding the new enterprises reported during the last seven days. This is the longest list that we have ever published in one week.

## ALABAMA.

A large three-story brick building will be built by the Florence Land, Mining & Manufacturing Co., Florence, Ala.

W. C. Stephens, Larkinsville, Ala., has erected a saw mill.

A \$350,000 company has been formed to erect a chemical charcoal and iron furnace plant at Florence, Ala. Land has been donated and work is to begin within 60 days. The Florence Land, Mining & Manufacturing Co. can give particulars.

J. A. Montgomery, William M. Burthea and E. P. Earle, of Birmingham, Ala., and William H. Skaggs and D. M. Rogers, of Talladega, have incorporated the Birmingham, Georgia & Florida Railroad Co., capital stock \$4,000,000, to build a railroad from Birmingham to Columbus, Ga.

The Birmingham Mineral Paint Co. has been formed at Birmingham, Ala., by H. C. Vaughan and others. Will erect their plant in East Birmingham.

A five-story building, 100x182 feet, will be erected at Birmingham, Ala., by Josiah Morris, of Montgomery. Edward Sidel is the architect.

The Gadsden Alabama Furnace Co., Gadsden, Ala., reported last week as to build a 100-ton iron furnace, will also build a 50-ton charcoal furnace.

J. H. Whitstone and others have organized a company to establish a soda water factory at Anniston, Ala. Want to purchase machinery.

A bill will shortly be introduced in the Alabama legislature to authorize the Clifton Land Co., of Birmingham, to build a street railroad.

Two blast furnaces and malleable iron works are reported to be built at Florence, Ala., by William Morrow and associates, of Nashville, Tenn.

The Southern Machine Co. will, it is said, move their works from Shelbyville, Tenn., to Florence, Ala.

A planing mill will be built at Bessemer, Ala., by the Bessemer Planing Mill Co. Machinery has been ordered.

Muckenhaupt Bros., Birmingham, Ala., will erect a planing mill, and have ordered the machinery of Shaw & Davin.

C. T. Morris, Sheffield, Ala., has purchased the Iron City Brick Works, and will enlarge them.

It is reported that arrangements have been made to build a \$200,000 cotton mill and a \$125,000 cotton yarn mill at Decatur, Ala. The Decatur Land, Improvement & Furnace Co. can probably give particulars, if correct.

The Dallas Land Co. has been formed at Selma, Ala., by J. C. Adler, M. C. Keith and others.

The Florence Coal, Coke & Iron Co., Florence, Ala., reported last week as to build a 100-ton furnace, will also build a 75-ton furnace.

A brick yard is to be started at Florence, Ala., by Mr. Glasgow.

The Sheffield & Seaboard Railroad Co., previously reported, will shortly be organized at Sheffield, Ala. The Sheffield Railroad Construction Co. will be organized to build the above company's road.

The Sheffield Manufacturing Co., Sheffield, Ala., will enlarge the capacity of their sash and door factory.

Some new machinery has been put in the sash and blind factory of J. T. Knowlen & Co., Selma, Ala.

The Selma Land, Improvement & Furnace Co., Selma, Ala., reported last week as incorporated, will build a charcoal furnace and a charcoal and chemical plant.

J. Hayward, Selma, Ala., will erect a new building for his planing mill.

The Tuscaloosa Coal, Iron & Land Co., Tuscaloosa, Ala., reported last week as purchasing 43,000 acres of coal lands, will build a standard gauge railroad through their lands. As soon as 8 or 10 miles are completed, mines will be opened.

E. C. Gordon and others have organized the Decatur, Southwestern, Mineral & Lumber Railroad Co., to build a railroad in a southwesterly direction from Decatur, Ala.

A Methodist church will be built at Marion, Ala., at a cost of \$20,000.

New and improved machinery will be put in the brick yard of J. W. & J. A. Drewry, Anniston, Ala.

The Selma & Alabama Railroad Co. has been incorporated at Montgomery, Ala.

The Gadsden Mineral Land Co., Gadsden, Ala., previously reported, will increase their capital stock from \$15,000 to \$50,000.

The Birmingham Soap Works, Birmingham, Ala., previously reported, will build at once a three-story factory, 50x125 feet.

T. C. Thompson has the contract to erect the new buildings for the machine shops and foundry of Aiken & Lighton, Birmingham, Ala., previously reported. The foundry will be 50x130 feet and the other building 40x200 feet.

A cotton factory is projected at Gadsden, Ala.

The Gadsden Land & Improvement Co., Gadsden, Ala., previously reported, will build a street railroad.

Mr. Paulk and others will erect a 3-story brick hotel at Union Springs, Ala.

The Rome Foundry & Machine Works, Rome, Ga., are to be moved to Anniston, Ala.

An iron front building, 35x120 feet, will be built at Anniston, Ala., by J. T. Warlick.

A syndicate has been formed at Huntsville, Ala., to prospect for oil.

The Birmingham Shoe Factory, capital stock \$60,000, has been incorporated at Birmingham, Ala., by A. B. Johnston, N. F. Miles, J. E. Long and M. J. Eastman.

H. F. De Bardeleben, David Roberts, M. E. Lopez, M. Adler and others will incorporate at Birmingham, Ala., a company to build a railroad from Bessemer to the Tennessee river by way of Birmingham. It is to be built at once.

The Decatur Chemical Charcoal Co., Decatur, Ala., will double the capacity of their furnace. It is reported, but not confirmed, that they will build 2 new furnaces of 50 tons capacity.

The name of the company reported last week as chartered to build a railroad from Florence, Ala., to Milan, Tenn., is the Florence, Birmingham & Chicago Railroad Co. J. E. Washington, Cedar Hill, Tenn., can give information.

A gin has been erected by J. B. Hall, Refuge, Ala.

The Natural Gas & Oil Prospecting Co. has been chartered at Birmingham, Ala., by A. K. Shepperd, A. K. Shepperd, Jr., and W. D. Chapin. The authorized capital stock is \$100,000.

J. W. Inzer, L. F. Box, A. T. Edmondson, E. J. Robinson, James T. Greene and others have incorporated at Ashville, Ala., the St. Clair Land & Improvement Co., to engage in mining, manufacturing, &c. The capital stock is \$50,000.

It is reported that the capacity of the Bell Factory (cotton), Huntsville, Ala., will be increased.

From 50 to 100 cottages are to be erected at once by the Anniston City Land Co., Anniston, Ala.

H. L. McKee and associates have bought the Selma Street Railroad, Selma, Ala. They will double the capital and extend the road.

H. A. Briggs & Co., Birmingham, Ala., will erect a corrugated iron building for their sheet iron works.

It is stated that an electric light plant is to be established at Decatur, Ala., by J. W. Eckford, of Aberdeen, Miss., and others.

S. F. Frazer, Union Springs, Ala., has with others, bought 5,600 acres of mineral lands.

The Tallassee Falls Manufacturing Co., Montgomery, Ala., will put additional machinery in their cotton mill at Tallassee Falls.

The Alabama & Tennessee Coal & Iron Co. are negotiating for the erection of their 3 furnaces at Sheffield, Ala., previously reported.

A. & A. W. Cox, Ashville, Ala., have erected a saw mill, and contemplate erecting another one.

A 15-ton ice factory is being erected at Mobile, Ala., by Gage & Co.

Davis & Bros., Montgomery, Ala., have received the contract for the brick work of an infirmary to be built in that city.

## ARKANSAS.

W. H. Gossell, John R. Wherry and E. C. Newton have chartered at Little Rock, Ark., the Wherry Manufacturing Co., capital stock \$10,000, to manufacture and sell electrical and mechanical inventions.

Robbins, Cross & Cleveland, Center Ridge, Ark., will rebuild their gin reported in this issue as burned.

The Macon Lumber Co., capital stock \$10,000, has been chartered at Macon, Ark.

D. Malven, Decatur, Ill., has been investigating the advantages of Little Rock, Ark., with a view to moving his wagon factory there.

The Bear Mining Co., Bear, Ark., previously reported, will probably purchase a smelting plant from Meech & Co., of Cleveland, O.

The Emporia, Winfield & Fort Scott Railway Co., capital stock \$5,000,000, has been incorporated at Topeka, Kan., to build a railroad from a point in Lyon county, Kan., to Fort Smith, Ark. The length will be 375 miles.

The Ora-Platta Mining & Developing Co. has been organized at Hot Springs, Ark., by John W. Bentz, of Hot Springs; E. Wilson, Caldwell, Kan., and others.

Settlemoir & Bros., Piggott, Ark., contemplate, it is said, erecting a saw mill.

## FLORIDA.

R. Mugge, Tampa, Fla., reported last week as to make a proposition to build water works in that city, will want, if his proposition is accepted, about 20,000 feet of 6 and 12-inch pipe, &c. He desires to purchase from Southern manufacturers.

E. Moulie has moved his perfumery manufactory from San Mateo to Jacksonville, Fla.

The Delks Bluff Moss Co. has been organized and will operate the moss factory at Grahamville, Fla., reported last week as started by O. H. Edwards. The capacity will be 1 ton of finished moss per day.

E. M. Doyle has received the contract to build the hotel at Silver Springs, Fla., reported last week. It will be three stories, 35x150 feet.

E. Baird & Bros., Hague, Fla., have purchased and will erect another saw mill.

A dispatch from Key West, Fla., states that a company has been organized in London, Eng., to start a large cigar factory in Key West, to employ about 1,000 hands.

R. Mugge, Tampa, Fla., will erect a four-story brick building, 60x60 feet, to be used for manufacturing furnaces.

James Hollinger, Wewahatchka, Fla., is buying machinery for a saw, shingle and planing mill.

## GEORGIA.

W. W. Richards, N. Harris, J. R. Tolleason, Edward S. Fowler, J. F. Lester and Theodore J. Telder have incorporated at Atlanta, Ga., the Seminole Blood Purifier Co., capital stock \$10,000, to manufacture medicines.

The Atlanta Improvement Co., capital stock \$250,000, has been incorporated at Atlanta, Ga., by S. M. Inman, C. A. Collier, H. C. Harris, Aaron Haas, M. C. Kiser and others. Its object is to build railroads, bridges, mills, factories, etc.

J. Cundell, M. G. McDonald and J. G. Dailey have formed a company at Rome, Ga., to establish a large furniture factory. The capital stock will probably be \$25,000.

The People's Land Improvement Co. has been chartered at Atlanta, Ga., by J. A. Fischer and others. The capital stock is \$24,000.

The Enterprise Manufacturing Co., Augusta, Ga., will put automatic sprinkling machinery in their cotton mill; are investigating as to best sprinklers.

J. H. Ruwe, Savannah, Ga., will rebuild his cracker factory, reported last week as burned, loss \$30,000.

An incandescent electric light plant is to be put in by the Savannah Electric Light Co., Savannah, Ga.

An electric fire alarm telegraph system will be erected at Macon, Ga., at a cost of \$5,420.

The Swift Manufacturing Co., Columbus, Ga., will add carding and spinning machinery (about 8,000 spindles) to their weaving mill at a cost of about \$100,000.

The Etowah Manufacturing Co., Rome, Ga., lately reported as formed to start a furniture factory, are purchasing machinery.

Andrew & M. L. Bates have started a guano factory at Griffin, Ga.

Warren A. Brown, James W. Bailey, R. Palmour, C. C. Sanders, James R. Barnes and others have incorporated at Gainesville, Ga., the Gainesville Cotton Manufacturing Co., capital stock \$50,000.

The North Georgia Shoe & Leather Co., capital stock \$20,000, has been incorporated at Gainesville, Ga., to manufacture shoes and leather, by M. L. Sell, C. C. Sanders, R. Smith, K. L. Boone, W. A. Wood and others.

An academy will be built at Waco, Ga.

The Rome Marble Co. has been organized at Rome, Ga., by Joel Branham, J. F. Warlick, W. S. Gibbons and H. M. Smith.

W. C. Baker and others, Cartersville, Ga., will receive bids for building the Sam Jones Female College until February 24.



J. C. Meinzer contemplates starting a cigar factory at Rome, Ga.

J. W. Rankin, Ollie Fuller, S. Inman, L. J. Hill, Aaron Haas and C. T. Swift, of Atlanta, Ga., and others, have bought the Bar-tow Iron Works property near Cartersville. They will organize a stock company to develop it.

The Methodists, of Atlanta, Ga., will build a \$10,000 church.

The Rome Iron & Improvement Co. has been organized at Rome, Ga., with W. P. Simpson as president.

It is probable that a large hotel will be built at Augusta, Ga., soon.

William Berry, Tallulah, Ga., wants to purchase bobbin and shuttle machinery, also wants information in regard to the manufacture of bobbins and shuttles.

#### KENTUCKY.

The Chess & Wymond Co. has been incorporated at Louisville, Ky., with an authorized capital stock of \$160,000.

The name of the \$500,000 stock company reported last week as organized at Louisville, Ky., to establish a furniture factory and veneering works, is the Astoria Veneer Mills & Lumber Co.

J. D. Williams, Denton, Ky., will not build a stove factory at Ashland, as reported last week, but will move his spoke works there and double their capacity.

The Ashland Foundry and Machine Shops, Ashland, Ky., are to be enlarged by April 1.

John Essary is trying to organize a stock company to develop an ochre mine near Rutledge, Ky.

A \$500,000 land and coal company will be organized at Hopkinsville, Ky., by V. M. Metcalf and others.

The hemp factory at the State penitentiary, Frankfort, Ky., lately burned, will be rebuilt.

Prague & Matson, Covington, Ky., have leased the McNamara tobacco factory and are refitting it with new machinery, and will use it as a drying house.

James Shackelford, W. M. Viser, F. H. Traxel, P. P. Parker and James W. Fitzgerald have incorporated at Maysville, Ky., the Maysville Hedge Co., to build hedge fences. The authorized capital stock is \$100,000.

It is stated that improved machinery will be erected at the limestone quarry of Smith & Gregory, near Grayson, Ky.

Gleason & Goswell have commenced work on their contract to widen the canal at Louisville, Ky.

The Chicago, Paducah & New Orleans Railway Co., capital stock \$10,000,000, has been chartered at Chicago, Ill., to build a railroad to New Orleans, La., by way of Paducah, Ky. It is proposed to build a bridge across the Ohio river.

It is reported that a \$100,000 company has been formed at Harrodsburg, Ky., to develop gas lands.

#### LOUISIANA.

The works of the Gulf Shot & Lead Co., New Orleans, La., reported last week as burned, loss \$40,000, will be rebuilt.

B. W. Marston, East Point, La., will rebuild his ginners, lately reported as burned.

The capital stock of the company reported last week as to be organized at Jeannerette, La., to build a railroad to Abbeville, will be \$250,000. The road will be about 30 miles long. F. M. Welsh is interested.

A \$50,000 building is to be erected at the corner of Camp and Delord streets, New Orleans, La., for the Tulane University.

A large steam ginners, a broom factory and a wood-working factory are reported to be started at Cheneyville, La.

#### MARYLAND.

New and improved machinery has been put in the fertilizer factory of F. H. Nickerson & Co., Easton, Md.

George A. Boyden, Douglas H. Thomas, William Whitridge, Charles B. Mann, Chauncey Brooks and Skipwith Wilmer have incorporated at Baltimore the Boyden Power Brake Co., capital stock \$500,000, to manufacture and sell brakes.

The Magnetic Clock & Power Co., capital stock \$100,000, has been incorporated at Baltimore, by W. Henry Shyrock, Augustus G. Davis, Charles N. Magne and others, of Baltimore, and Edward W. Chillis, of Harrisburg, Pa.

Thomas A. Symington, August Lambla, A. K. Shriver, James Biden, Jr., and Peter H. Morgan have incorporated at Baltimore the National Electrical Appliance Co., with an authorized capital stock of \$5,000,000.

The contract to build the Union depot at Cumberland, Md., for the Piedmont & Cumberland and other railroads, previously reported, has been awarded to E. J. Fredlock, of Piedmont, W. Va.

About \$80,000 is to be spent in making improvements and erecting new machinery at the ordnance yard at Washington, D. C. Civil engineer Menocal has prepared plans for the improvements.

The lumber mills of W. W. Tunis & Bros., Tunis Mills, Md., have been recently refitted with new machinery.

Wm. T. Elbin, Longwoods, Md., has put some new machinery in his flouring mills.

E. J. Codd & Co., Baltimore, have received the contract to furnish a boiler for the United States lighthouse steamer Arbutus, at \$5,887.

Toland & Son are erecting new saw works on North Front street, Baltimore.

#### MISSISSIPPI.

At a meeting of capitalists and others at the office of Nugent & McWillie, Jackson, Miss., committees were appointed to "draft articles of incorporation for a land improvement company and a charter for a cotton and woolen factory."

It is stated that the oil mill reported last week as rumored to be built at Vicksburg, Miss., will be erected by a company to be known as the Vicksburg Cotton Seed & Oil Co.

The Greenville Street Railroad Co., capital stock \$25,000, has been organized at Greenville, Miss., with F. L. Bates as president; R. S. Tombs, secretary, and George Archer, treasurer. Rails have been bought for 1 1/4 miles of track.

#### NORTH CAROLINA.

J. S. Bizzell will start a buggy and wagon factory at La Grange, N. C.

The address of W. J. Bullock, recently reported as erecting a saw mill in Hyde county, N. C., is Pantego.

James Boyle is erecting a saw and planing mill and a grist mill at New Berne, N. C.

A. H. Leftwich, Greensboro, N. C., has leased the Deep River coal fields near Gulf, from D. F. Caldwell.

It is reported that W. E. Turner, Dobson, N. C., contemplates establishing a foundry and machine shop at Lenoir.

Bills will be introduced in the North Carolina legislature to incorporate companies to build railroads from Asheville to Unaka, Tenn.; from Rutherfordton to Asheville, and from Asheville to Greenville, S. C.

A corn mill has been erected at Vienna, N. C., by Julius Anderson.

Huff & Stewart will start a buggy factory at Kernersville, N. C.

A two-story depot, 56x140 feet, will be built at Greensboro, N. C., by the Cape Fear & Yadkin Valley Railroad Co., (office, Fayetteville). Thomas Woodroffe has received the contract.

J. A. & W. F. Wilson, Baltimore, have prepared plans for a chemical building for Wake Forest College, Wake Forest, N. C. It will be two stories, 68x106 feet.

The Durham Cotton Manufacturing Co., Durham, N. C., will erect a dye house. Are now purchasing machinery for it.

Bills have been introduced in the North Carolina legislature to incorporate the Manly & Troy Railroad Co.; the Atlantic, Henderson & Virginia Railroad Co.; the Central & Northwestern Railroad Co.; the Carolina Lime & Phosphate Co.; the Cranberry & Piedmont Railroad Co.; the Roanoke & Southern Railroad Co.; the Atlantic & Virginia Railroad Co.; the East Carolina Canal & Land Co.; the Cashie & Roanoke Railroad Co.; the Boylston Gold Mine; the Gay Manufacturing Co.; the Wilmington & Onslow Railroad, and the Murphy & Tennessee Railroad.

#### SOUTH CAROLINA.

The Stanly Manufacturing Co. has been formed at Eastover, S. C., to manufacture firnolinic oil from pine wood. The company are having machinery manufactured for their works.

A \$1,000,000 land and improvement company will be organized at Greenville, S. C., to build mills, &c.

#### TENNESSEE.

The Fulcher & Dyas Brick Co., Nashville, Tenn., reported last week as incorporated, have bought the brick yard of Fulcher & Dyas, and will put in new machinery to double the capacity.

The Nashville Burial Case Co. has been formed at Nashville, Tenn. Will build a 4-story brick factory and warehouse, 75x160 feet. The South Nashville Lumber Co. are interested, and can give information.

A. D. Reynolds, Bristol, Tenn., has bought a building formerly used as a woolen mill, and will fit it up with machinery for a smoking tobacco factory.

The Richland Land & Improvement Co. has been organized at Nashville, Tenn., by J. A. Pigue, H. M. Pierce, L. H. Davis and others.

J. F. Robertson, W. W. Crandell, T. H. Durham and J. W. Murchison have formed a company to build the roller flour mill at Alamo, Tenn., reported last week. The daily capacity will be 50 barrels. The same parties are erecting a 75-barrel mill at Crockett's Mills.

J. T. Howard, Bloomingdale, Tenn., will build a tobacco factory.

It is stated that the Southern Steel Works, Chattanooga, Tenn., will be moved to another location, and be rebuilt on a larger scale.

The capital stock of the Caney Fork Iron & Coal Co., previously reported as organized at Tullahoma, Tenn., to mine for coal, iron, marble, &c., and build coke ovens and furnaces, is \$900,000. Albert B. Tavel is president.

The East End Land Co. has been chartered at Chattanooga, Tenn., by S. W. Divine, N. W. Carothers and others.

The Brownsport & Cedar Creek Iron Manufacturing Co., Memphis, Tenn., previously reported, have organized with Napoleon Hill as president, and N. Fontaine as secretary and treasurer. The capital stock is \$1,200,000. \$300,000 has been set apart to be used in developing the Brownsport and the Cedar Creek furnace properties in Decatur and Perry counties. It is said that several new furnaces are to be built.

The Hermitage Hosiery Mills and the Hermitage Suspender Co., of Nashville, Tenn., have consolidated as the Hermitage Hosiery Mills.

It is stated that J. B. Wolfe, White Store, Tenn., will move his furniture factory to Piney Flats.

J. F. Loomis, John A. Hart, F. L. Winchester, A. J. Gahagan and A. G. Stevens have incorporated at Chattanooga, Tenn., the Loomis & Hart Manufacturing Co., to manufacture lumber, furniture, &c. The capacity of the mills of Loomis & Hart will be enlarged.

The Young Men's Christian Association, of Nashville, Tenn., will soon erect a large new building. Plans have been prepared.

Some new machinery has been put in the machine shops of Gregg & Co., Morristown, Tenn.

Stivers, Woodburn & Co., Chattanooga, Tenn., will build a new planing mill on Montgomery avenue.

William Wood will erect a steam laundry at Columbia, Tenn.

George Huffstetler contemplates erecting a sash, door and blind factory and a planing mill at Maryville, Tenn.

L. V. McDaniel, Chattanooga, Tenn., will start a steam brick yard at Dayton.

J. C. Nelson, Dayton, Tenn., has leased a large bed of iron ore 10 miles from that city and will open a mine.

L. Gerstle, Union Depot, Tenn., will, it is said, move his medicine factory to Chattanooga.

R. W. Fee, Chattanooga, Tenn., reported last week as erecting a wooden pulley factory, has formed the Chattanooga Split Wooden Pulley Co.

Ross Bros. will develop a marble quarry near Strawberry Plains, Tenn.

John M. Meek, Strawberry Plains, Tenn., is organizing a company to develop marble quarries. He solicits correspondence.

Longanecker & McCullom are organizing a stock company at Chattanooga, Tenn., to manufacture fence machines. The capital stock will be about \$100,000.

The Central Baptist Society, Chattanooga, Tenn., contemplate building a church.

It is rumored that a large wagon factory will be established at Chattanooga, Tenn.

A company is being formed to build a machine shop and foundry at Cleveland, Tenn.

The Pine Mountain Coal, Iron, Land, Railroad & Manufacturing Co., reported last week as incorporated in Tennessee, succeeds the Wall Mining Co., of Jasper. The capital stock is \$500,000. The company will build 1 mile of railroad, shops, a hotel and a number of houses, and open new coal mines.

#### TEXAS.

The First Congregational Church, Dallas, Texas, will erect a new building at a cost of \$10,000.

A stock company has been formed at Coleman, Texas, to develop a coal mine.

The paid-up capital stock of the Texas Mining & Improvement Co., reported last week as incorporated at Burnet, Texas, is \$60,000. The company is leasing about 100,000 acres of mineral lands which they will develop. A. R. Johnson is president, and R. E. Johnson, secretary.

The Granbury College, Granbury, Texas, will be rebuilt. It will be three stories, 50x80 feet.

N. S. Storrs, Springdale, Ark., is trying to organize a company at Paris, Texas, to establish a canning factory.

The Center Tap Railway Co. has been organized at Center, Texas, to build a railroad to Teneta, 11 miles.

The Hillsboro, Dawson, Southwest & Southeast Railroad Co., capital stock \$700,000, has been incorporated at Hillsboro, Texas, with J. D. Warren as president; C. W. Younger, of Dawson, vice-president, and W. F. Osborne, secretary.

John Keefner, San Antonio, Texas, has bought the old ice machinery of the Lone Star Brewery and will start a factory at Fredericksburg, Texas.

Kyle, Texas, contemplates issuing bonds to build water works.

The Texas & Pacific Railroad Co. (office, Dallas, Texas), will build a freight depot at El Paso.

A coal mine is being opened near Alvarado, Texas.

[CONTINUED ON PAGE 926.]



### Improved Giant Railroad Excavator and Wrecker Combined.

The accompanying engraving represents the Giant Railroad Excavator and Wrecker, built by the Vulcan Iron Works, Toledo, O., with all the latest improvements. This machine is indispensable in railroad building, and parties contemplating the use of steam in place of hand labor for all kinds of railroad excavations, loading cars for ballasting, trestle filling, widening cuts and embankments, cutting down heavy grades, cleaning ditches, etc., etc., will be pleased to note the recent improvements in the Giant Excavator.

When in working condition the excavators are 50 feet long over all, 10 feet wide, and cranes 25 feet high. When in condition for running over the road they are 52 feet long, 16 feet high and 10 feet wide. They are worked by 50 horse-power horizontal duplex hoisting engines, with independent swinging

5. Increased power of friction hoisting gear.

6. Increased boiler capacity.

7. A steel dipper arm, with steel racking, pinions and shaft, all of which improvements have been carefully studied and thoroughly tested. The entire machinery being mounted upon an eight-wheel car of four times the strength of other cars, will run by its own power or may be hauled in any train. It has adjustments which enable it to pass under any low or narrow bridge; in fact, it can be hauled anywhere that a passenger car can go.

The new patented steel crane mast is one of the most valuable improvements, and increases the capacity of the machine 25 per cent. by taking off all of the strain from the crane. Most excavator cranes are swung by the same engine that performs the hoisting. The Giant machines have independent engines for this office.

No wood is used in the construction of

from the numbers on the castings. One or two finished machines or those in progress of construction are usually kept in stock, avoiding long delays in filling orders.

A full description of the various parts and workings of these excavators, with photographs or engravings, will be sent free by the manufacturers, the Vulcan Iron Works, Toledo, Ohio.

### Success of Profit-Sharing.

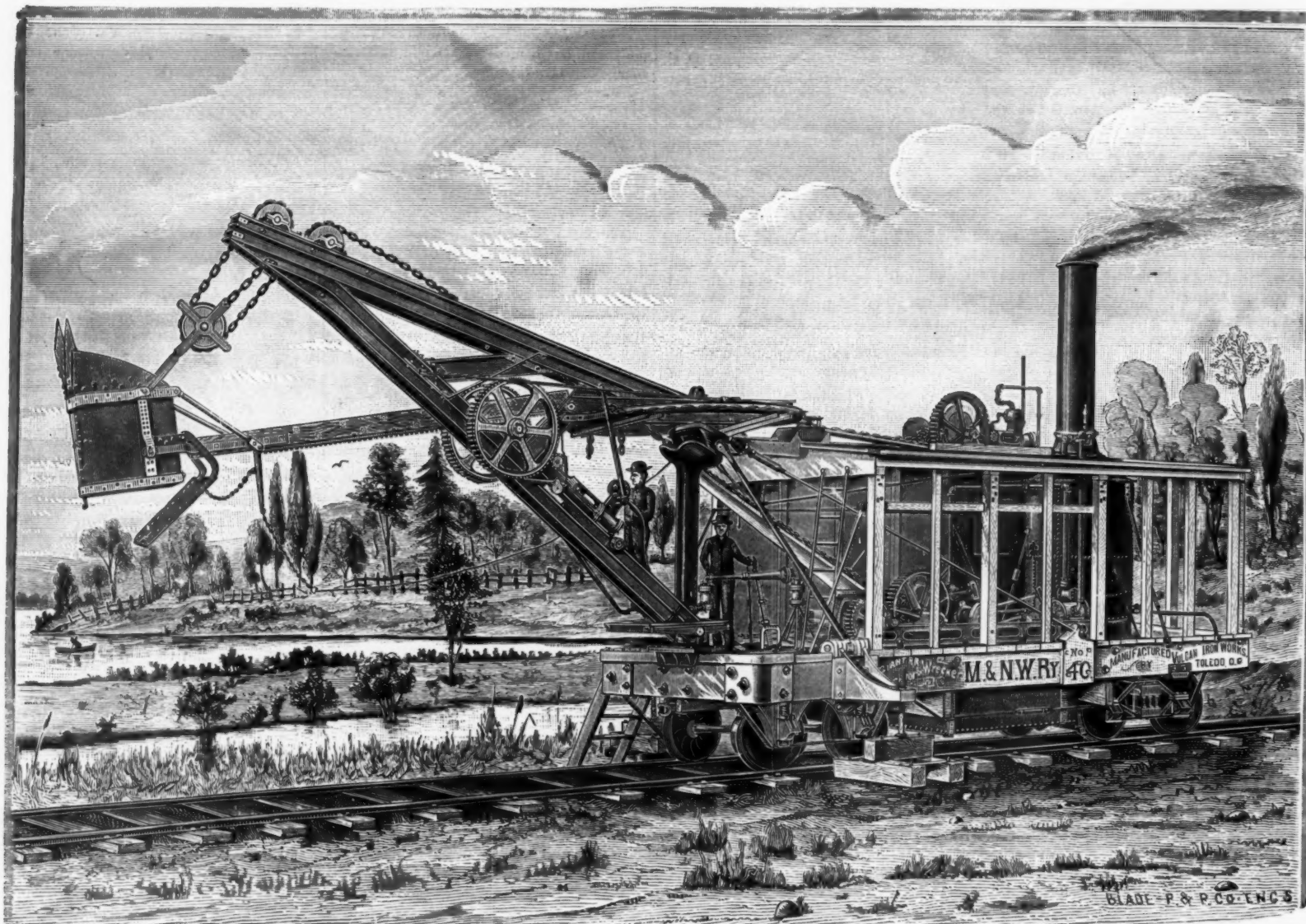
Mr. N. O. Nelson, a prominent manufacturer of St. Louis, who has had nearly a year's experience in profit-sharing with his men, expresses the opinion it is decidedly the best plan for the prevention of strikes and for the maintenance of good feeling between employer and employed. Last March he inaugurated profit-sharing in the factory—the Nelson Manufacturing Co.—where between 50 and 100 men are employed. By agreement with his men, they were to work

### Where the Blame Lies.

[Louisville (Ky.) Commercial.]

The Baltimore MANUFACTURERS' RECORD, one of the foremost champions and exponents of Southern enterprise, has the following forcible and truthful criticism to make upon the leading antagonist of true Southern interests:

In its frantic efforts to prove that a protective tariff is a curse to the South, and that free trade would be a great blessing to that section, the Louisville Courier-Journal is guilty of advancing arguments that are totally without foundation. Its intense hatred of all that savors of protection makes it fairly mad with rage at the signs of progress throughout the South, and it is doing all in its power to prove that the South is not becoming more prosperous. A greater enemy to the South's progress than the Courier-Journal cannot be found, and we may easily believe that it would rather see the whole



THE GIANT RAILROAD EXCAVATOR AND WRECKER.

and forcing engines having ample capacity—upright boilers being 8 feet 5 inches high, and 64 inches diameter, with 160 tubes. The crane, swing circle and mast braces are all made of the best steel. Steel hoisting chains, shafting of best hammered iron, and journals, bearings and boxes are lined with No. 1 Babbit metal or phosphor bronze.

The car upon which the excavator is mounted is of iron, extra heavy made all through. Axles are 5 inches, with bearings 4 3/4 inches diameter, by 8 inches long. The excavator is self-propelling, which enables the operator to handle it on any track with perfect ease.

#### IMPROVEMENTS.

The improvements are as follows:

1. A pair of duplex reversible engines to force and hold the dipper into the bank.
2. A cast steel crane mast, lately patented.
3. A substantial house frame and car.
4. A pair of independent duplex engines or swinging the crane.

these excavators, except the planking, roof and sides. The machinery is nearly all steel, and built for wear and rough usage.

This excavator is capable of handling, per day of 10 hours, from 1,200 to 2,000 cubic yards, according to the material.

These machines do away with the expense of large gangs of men, of taking to pieces, loading, unloading, setting up and moving an excavator—a great drawback with the old models.

The Giant Excavators are frequently used for dredging, and in 20 feet of water have a capacity of 1,000 cubic yards per day.

By removing the dipper we have a first-class wrecking and derrick car, or, at a small additional expense, a pile-driving attachment is furnished.

Every machine built by the Vulcan Iron Works is thoroughly tested to its full capacity before it is shipped. Every casting used has a distinctive number, and duplicate parts can be had without delay by ordering

55 hours per week and receive full pay, and at the end of the year, after allowing 7 per cent. on the capital invested and paying himself a salary for his own services, the remainder of the profits was to be divided equally on the total amount of wages paid and the capital employed. Recently the company declared a dividend of 5 per cent. on salaries to employees, which has been paid in cash or in certificates bearing interest. The employees, of their own accord, requested a return to full time when they were told other manufacturers had abandoned the 8-hour plan, and have worked to greater advantage than previously. Mr. Nelson has added several new features to his plan for the present year. Ten per cent. of the profits is to be devoted to the foundation of a provident and relief fund for the employees, 10 per cent. will be set aside for a surplus fund to cover losing years, and 2 per cent. will go into the purchase of books for the employees' library.

South in the direst poverty than that it should become prosperous under a protective tariff.

And yet, with a flood of such judicious criticism to educate them from error, there are many people in Kentucky who are so hide-bound and ignorant as to believe that the Courier-Journal is an infallible political oracle. The plain truth is as the MANUFACTURERS' RECORD has stated. Were it not for the constant depreciation of the South and the idiotic clamor for a policy that would wreck every infant industry in this whole section, the city of Louisville and the State of Kentucky would have now been many millions of dollars better off, and have a population of several hundred thousands more. That, as a city and State, our people are not lying quite so deep in the old rut of conservatism, is despite the influence of the Courier-Journal and by the independent grace and courage of those who do not fall down and worship its strange gods.



## News from Tennessee.

[Special correspondence MANUFACTURERS' RECORD.]

MOUSE CREEK, TENN., Jan. 25, 1887.

Mrs. Carrie Berry, Philadelphia, Tenn., has improved her corn mill, putting in a new turbine wheel. She anticipates putting up an emery or corundum wheel for grinding iron and steel points. She also has valuable marble of the pink variety with green streaks in it, which would pay some one in the marble business to develop.

A survey has been made to locate a railroad from Reagan's, on the East Tennessee, Virginia & Georgia Railroad, to the marble quarries at Craighead, a distance of four or five miles. There is a very large cave at these quarries which is composed of numerous rooms, some of them frescoed with the

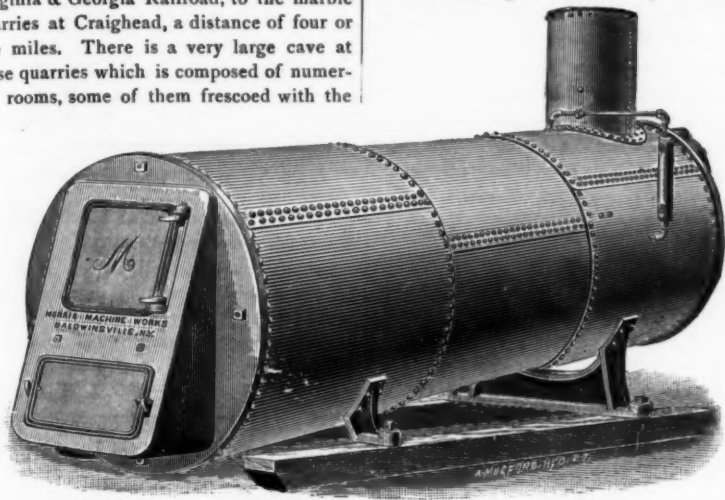


FIG. 1.—THE MONARCH BOILER.

most beautiful stalactites. Deposits of keel are found in this cave, and at some distance is a stream of fresh water which empties into a large pond or reservoir. Tourists would find many things of interest in this subterranean cavern.

It is confidently expected the railroad from Reagan's will be extended to Murphy, N. C. If so, it will open up some fine mineral and marble lands. It would penetrate the famous Tellico iron ores on the Tellico river. These ores were extensively worked before the war, but, owing to their remoteness from coal, and being without railroad or shipping facilities, were abandoned. These ores are inexhaustible and said by experts to be especially adapted to making steel. It being nearly all down grade from this point to Reagan's, a distance of only 25 or 30 miles, facilitates transportation, and with a steel plant at Reagan's, steel could be made as cheaply as anywhere. Along this proposed line of road are large beds of slate, easily quarried and of excellent quality. It is also proposed to

## The Monarch Boiler.

We give below two views of a patent boiler recently placed on the market by the Morris Machine Works, of Baldwinsville, N. Y. The boiler is of a novel design, and has many points of excellence, and is said to contain none of the faults usually found in the common portable boiler.

The shell of the boiler is much the same as the stationary brick set boiler, and has an incline of about one inch to the foot. The fire box, conical in shape, is secured to the shell by wide flanges, the forward end of same containing flue sheet. By reason of

this manner of construction, the water has a perfect circulation, and the inclination of boiler and circular fire box, naturally brings all sediment to the lowest part of the boiler, where it can be removed by the blow-off cock.

A natural draught is obtained at all times. All parts of the fire box have an effective heating surface. A cone-shaped fire box needs no staying. Steam is taken from the highest point of the boiler, and steam coming from the opposite end has a widening passage, which will prevent the possibility of priming. The air space under the grates is also a tapering passage, which will cause an equal amount of air to pass through all parts.

The company controlling this boiler claims that it will take the place of all other portable boilers as soon as its merits become known.

## Investigation of Mineral Resources Requested.

[Special correspondence MANUFACTURERS' RECORD.]

IUKA, MISS., January 27, 1887.

We have in this county some valuable minerals that ought to be developed. There

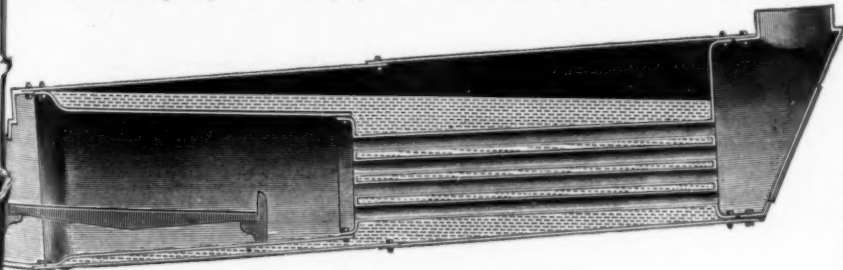


FIG. 2.—THE MONARCH BOILER.

extend this line of road to Spring City, on the Cincinnati Southern. This will make Reagan's an important manufacturing town. The climate here is healthy, with plenty of running water and cheap building material. Parties desiring information should address Lenoir Reagan, Sweetwater, Tenn.

The roof on the new woolen mills, Athens, Tenn., has been completed, and the work of putting in machinery will be pushed as fast as possible.

The Mt. Verd Cotton Mills, Mt. Verd, McMinn county, have made some changes in water wheels.

H. L. Shultz, Mouse Creek, Tenn., will donate a site or location on railroad to any enterprising company to build and operate a manufacturing establishment.

P. N. SHULTZ.

are large beds of steatite pipe clay, and kaolin for a certainty; and it is possible that a good quality of iron ore may exist. There is plenty iron ore, but whether rich enough to work is the question. Coal is only from 14 to 20 miles away in the edge of Alabama. There are also here large beds of slate and hard cement. Every variety of clay can be found here. A bed of blue slate, having under it a deposit of sulphide of iron (copperas) and a thin vein of coal, has been recently found but 4 miles from this place.

Some time in '86 a company was formed in Memphis to mine and manufacture into paint a large deposit of red and brown chalk found about  $\frac{1}{2}$  mile from Iuka. The chalk has great weight, and is oily and sticky. Several tons of the ore had been shipped, when some time in December, just

as the factory was ready to go into operation, the entire plant was destroyed by fire. The company has not yet determined whether to rebuild in Memphis or to locate their works here. They have been negotiating for a site at this place, and I think they will come. They have plenty of capital.

There is some excitement here about what is supposed to be brown hematite, or the red clay ore used in the manufacture of Bessemer steel. It is certain that large quantities of a red chalky substance have been found, answering to the description of that ore, and rude tests have been made which tend to confirm the belief in its existence here, but there is no one here with a sufficient practical knowledge of the subject to decide the matter. Furthermore, the people here do not know how to go about having the ores in this county tested. Plenty of capital to pay some man with a practical knowledge of these things to come here and prospect for paying minerals, can be found, and if the minerals are here and we can prove that they are here, we know where to get the money to develop them. But we don't know how to find out the value of what we have.

We are in a mountainous country, higher above the level of the sea than any point between Memphis and Chattanooga, and between the Tennessee river and the Warrior coal field. We have fine mineral springs (iron and sulphur), a well watered and finely timbered country, and it seems that we ought to be able to catch some of the breeze that is filling the sails of Sheffield and Birmingham.

E. B. POWELL.

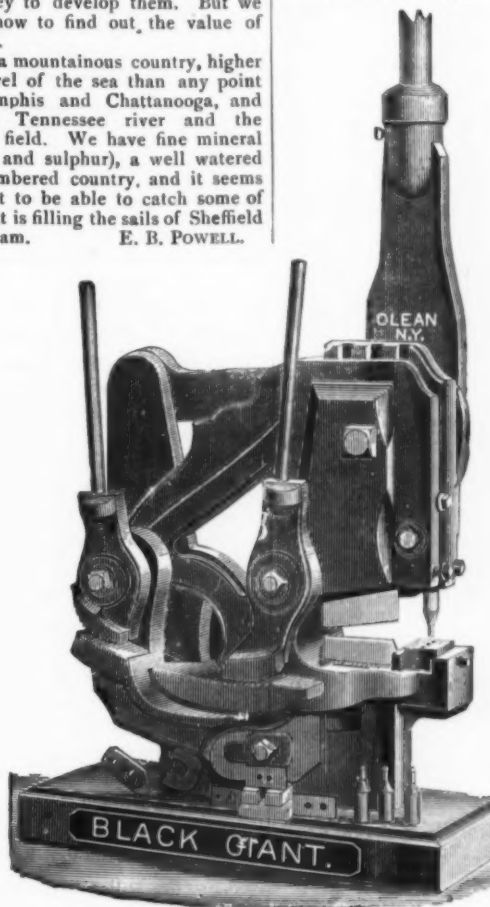
## To Develop the Manufacturing Interests of Montgomery, Ala.

MONTGOMERY, ALA., January 27, 1887.

Editor Manufacturers' Record:

The Montgomery Land & Improvement Co. was organized January 16th, with \$750,000 capital, one-third of it being paid for 677 acres of land immediately north of the city limits, and covering the space between two bends of the river and comprising more than 3 miles of railroad front, and also occupying 2 miles of the river front. This gives the company exceptional shipping facilities both by rail and water.

Another one-third of the stock was sold for cash, more than \$100,000 subscriptions being refused. The entire stock, with the exception of \$10,000, was taken by our own citizens, which is regarded by us as a most important feature of the enterprise. The remaining one-third of the stock is held in the treasury, to be sold for development purposes and will be used for the exclusive benefit of the enterprise. There is no spec-



THE BLACK GIANT SHEAR, PUNCH AND UPSET.

## The Black Giant Shear and Punch.

The Black Giant Shear, Punch and Upset, shown in the accompanying engraving, is a valuable combination machine for metal workers. The weight of this machine has recently been increased to 500 pounds, and it has been so strengthened that it will now cut  $\frac{3}{4}$  inch square and round iron and 3 inches by  $\frac{1}{2}$  inch flat bars without breaking a part. It will punch iron  $\frac{3}{8}$  inch thick and a  $\frac{3}{4}$  inch hole in boiler plate 5-16 inch thick, 6 inches from the edge. The main bearings are chilled, and steel gibs in back of gate take up all wear. The upset has a sure grip and the machine is easily operated by one man. It upsets buggy axles and ordinary wagon tires one inch at a heat, and will upset axles of any kind of iron from  $\frac{1}{2}$  to 1 inch thick.

The dies and punches belonging to the machine are self-adjusting. Ripping shears, for cutting continuous strips, and saw gummers can be used on it. The Black Giant Metal Worker is a very desirable hand-power machine for all carriage and wagon ironers, blacksmiths and machine shops. For further particulars and prices address Black Giant Co., Olean, N. Y.

ulative purpose by the company. It is strictly a home enterprise, inaugurated by our best and most substantial people, with the bona fide purpose of building a manufacturing town. Already applications and propositions have been received from various parts of the country, looking to the location here of a variety of industrial establishments, and so far the indications are for most substantial results.

A charcoal and chemical plant, under the Pierce patents and processes, in connection with a charcoal blast furnace of 50 tons daily capacity, is among the certainties. An extensive milling company and a brewery, with \$75,000 capital, have also been proposed; and we are in correspondence with parties in reference to the location of stove and car works. Several other smaller industries are now projected.

A contract has been closed with the State Agricultural Society by which they agree to hold their State expositions on the grounds of the company nearest the city, in buildings to be erected by the company, for a term of not less than five years. The buildings will be large and adapted to the purpose—the construction to begin during the month of February and to be completed before the first of October. A street railroad, operated



by dummy engines, will be built during the summer, and will connect the manufacturing with the residence portion of the village and will also traverse the principal streets of Montgomery. Neat cottages will be built by the company and sold on long time and easy terms to actual occupants. The location is beautiful, and after the sewerage, in course of construction, is completed it will be equally as healthy as the city of Montgomery, which, by the report of the State Board of Health, is shown to be one of the healthiest cities in the Union.

The industries already arranged for will give employment to more than 300 men, and indications pointing in all probability to 500 or 600 more.

The Land & Improvement Co., itself donating the ground to any good industry, will take a part of the capital stock in each industrial enterprise possessing the necessary merits in order to secure their location. Individual stockholders of the Land Co. will also do the same.

Our people are alive to the idea of a manufacturing town, and for the present, at least, I have no hesitancy in stating that a good proportion of the necessary capital for any manufacturing enterprise adapted to the location and demands of the country will be promptly taken by our people.

W. L. CHAMBERS, Vice-President.

### To Build a Railroad.

JEANNERETTE, LA., Jan. 29, 1887.  
*Editor Manufacturers' Record:*

There is a company organized in this place by the citizens of Jeannerette and Abbeville to build a standard gauge railroad from this point to Abbeville, a distance of about 30 miles. The capital stock is \$250,000. Operations will be commenced at once, as the charter is already secured and enough stock subscribed to guarantee an early completion. The section of country the proposed road will pass through is the richest farming lands in America. I know of no section of the South offering better inducements to capitalists than this.

F. M. WELCH.

### Enlarging Electric Light Plant.

WHEELING, W. VA., Jan. 28, 1887.  
*Editor Manufacturers' Record:*

We are now adding and have contracted for a 500 incandescent electric light plant.

WHEELING ELECTRIC CO.

BURNET, TEXAS, Jan. 26, 1887.  
*Editor Manufacturers' Record:*

The marble quarry reported as opened by myself was opened by the newly incorporated company—the Texas Mining & Improvement Co.,—of which I am president, for prospecting purposes. This company is leasing 100,000 acres of mineral lands, principally in this county. They have leased several mines of iron, which assay 87 and 90 per cent. They have two fine coal mines—one stone coal, the other cannon coal. They have experts in the field prospecting now. They have under lease the old Mexican silver mines, which were worked some 50 years ago by Mexicans, in 15 miles of the great Marble Falls. Our capital is \$1,000,000, \$60,000 paid up. S. E. Holland is treasurer; C. T. Dalton, vice-president, and R. E. Johnson, secretary.

A. R. JOHNSON, Pres.

### Started a Guano Factory.

GRIFFIN, GA., Jan. 31, 1887.  
*Editor Manufacturers' Record:*

We are making guano. Started only middle of the present month, and will make only five or six hundred tons; but if encouraged hope to make four to five thousand tons next season. Originators are M. L. Andrews and Walter Bates.

ANDREW & BATES.

[CONTINUED FROM PAGE 923.]

Joske Bros., San Antonio, Texas, will erect a building, 180x220 feet, to cost \$100,000.

William Meininger, Galveston, Tex., previously reported to erect a cracker factory with a daily capacity of 100 barrels of flour, has, with Louis Schneider, George Seeligson, G. Reymershoffer and J. Davis, chartered the Lone Star Cracker Co., capital stock \$50,000. Mr. Meininger is president.

Northern parties will open coal mines near Headsville and Kosse, Texas.

The Weatherford Street Railroad Co., capital stock \$50,000, has been chartered at Weatherford, Texas, by J. M. Borril, J. L. Simmons and O. H. Miliken.

#### VIRGINIA.

The sash and blind factory of Whitehurst & Owens, Richmond, Va., reported last week as burned, will soon be in operation again. The loss was about \$3,000.

W. D. Obenshain, Obenshain, Va., will start a factory for making washboards, axe handles, spokes, &c.

A stock company is being formed at Obenshain, Va., to start a canning factory, by Samuel Obenshain and others.

A creamery company has been organized at Roanoke, Va., with H. A. Sims as president, R. D. Miller, vice-president, and S. S. Brooks, secretary and treasurer. The capital stock is \$5,000.

The Farmville Water Co. has been organized at Farmville, Va., with A. R. Venable Jr., W. G. Dunnington, W. G. Venable, A. D. Watkins, P. A. Irving and B. S. Hooper as directors. The capital stock is \$25,000.

The Old Dominion Electric Light & Power Co. has been chartered at Richmond, Va., with M. B. Leonard as president and C. E. Wellford secretary and treasurer. The capital stock is to be not less than \$5,000 nor more than \$50,000.

R. B. Burton, Stevensburgh, Va., will rebuild his wagon and carriage shops reported last week as burned.

The North Carolina Coach Material Co., Greensboro, N. C., will move their works to Richmond, Va.

The Hale Pavement Co., capital stock \$150,000, has been organized at Staunton, Va., with R. H. Catlett as president; J. Hotchkiss, secretary and treasurer; and T. L. Rosser, general manager. Its object is to manufacture vitrified street pavements.

The Albemarle Paper Manufacturing Co. will build a paper mill at Richmond, Va.

A planing mill is reported to be built at West Point, Va., by W. H. Ruark, of Westover, Md.

A sumac factory will be started at West Point, Va., by Wilkinson & Elphinston.

A flour mill has been erected at Snowville, Va., by Isaac Slenker.

Mr. Seagle, Wytheville, Va., is erecting a furniture factory at Pulaski Station.

The contract for the construction of mattress-dykes and for the construction and extension of jetties in the James river, near Richmond, Va., has been received by Geo. F. Gayner, of Savannah, Ga., at \$17,580.

Mason & Cook, Vinton, Va., are erecting a cooper shop to supply their flour mill with barrels. They speak of erecting a grain elevator.

W. P. Huff, Roanoke, Va., contemplates refitting his flour mill with roller machinery.

#### WEST VIRGINIA.

G. A. L. Mayes, Fairmont, W. Va., has the contract to build a court-house at Clarksburgh, and will begin work April 1st. It is to cost \$46,650.

Titus & Clawge, St. George, W. Va., lately reported as building a saw mill, will also erect a grist mill.

A stove mill will be erected at Buckhannon, W. Va., by Morrison & Co. Work will be commenced at once.

The Wheeling Electrical Co., Wheeling, W. Va., have contracted for an incandescent plant, which will be added to their arc plant. It will have a capacity for 500 lights.

The Elm Grove Oil & Gas Co., Wheeling, W. Va., previously reported, has been organized with W. B. Scott as president; J. H. Stone, vice-president; D. M. Thornburg, secretary, and H. M. Hervey, treasurer. The company have leased 4,000 acres of land and will soon sink a well.

#### BURNED.

The ice factory at Dallas, Texas, owned by Arthur Hutchinson and Mr. Lyles.

The iron foundry of Osborne & Co., Clarksburg, W. Va.; loss, \$10,000.

The Harvey Paper Mill at Wellsburgh, W. Va., damaged by a boiler explosion.

The mill and gin of Bettie Patrick, Hookerton, N. C.; loss, \$2,500.

The tin factory of H. Wetter & Co., Memphis, Tenn.; loss, \$40,000.

The saw mill of J. D. Porter, Anniston, Ala.; loss, \$1,500.

A flour mill near Baltimore, owned by the trustees of the Sheppard Asylum estate. The loss is \$10,000.

The saw mill of Mr. Blackmore at Linda, 10 miles from Palatka, Fla.; loss, \$1,500.

The mill and gin of Robbins, Cross & Cleveland, Center Ridge, Ark. The gin will be rebuilt at once.

The gins of W. M. Johnson, Red Bone, La.; J. J. Horton in Webster Parish, La.; James Wright, Canton, Ga.; W. H. Powell, Battleboro, N. C.; Jerry Bowman, 5 miles from Bovina, Miss.; and J. M. Weatherby, Marianna, Ark., have been burned.

### A \$3,000,000 Company Organized to Build Two Furnaces, Steel Plant, Rolling Mills, &c., at Selma.

SELMA, ALA., Jan. 25, 1887.  
*Editor Manufacturers' Record:*

The Selma Land, Improvement & Furnace Company was organized and incorporated Friday last, with a capital stock of \$3,000,000. The company owns about 3,000 acres of valuable suburban and city property, ten or twelve thousand acres of rich and inexhaustible mineral lands adjacent to Selma, a magnificent hotel, warehouse, river front, manufacturing interests and other valuable property. They propose to build a railroad to the Cahaba Valley coal and iron and marble fields; to begin the erection as early as possible of one coke and one pig iron furnace, a steel plant and a large rolling mill. In addition to this they will build and operate a line of steamers and barges between Selma and Mobile. There are numerous other enterprises and industries they intend to start and own. This is one of the biggest and most substantial companies ever organized in this country, and its hopes of a grand success is practically assured, as no city in the South is nearly so advantageously situated as Selma is.

Books of subscription to the capital stock of the company will be opened Monday, January 31st. Already applications for from \$1,500,000 to \$2,000,000 of the stock have been made.

SHEROD H. SMITH.

### Will Erect a Marble Mill.

NELSON, PICKENS CO., GA., Jan. 26, 1887.  
*Editor Manufacturers' Record:*

We are now preparing to erect buildings and machinery for finishing our marble as we saw it into the various shapes and styles required by the trade. The building will be 100x60 feet, and will be equipped with the best known modern machinery for cutting, truing, polishing and finishing marble. We expect to employ about 50 men in this department of the business.

J. A. DEWAR, General Manager.

### To Build Charcoal Furnace and Chemical Plant.

FLORENCE, ALA., Jan. 26, 1887.

*Editor Manufacturers' Record:*

Stock has been subscribed for a chemical, charcoal and iron furnace plant, capital stock \$350,000, to be built at this place. Land donated and construction to begin in 60 days.

H. C. WOOD.

### Will Build Two Furnaces.

GADSDEN, ALA., Jan. 28, 1887.  
*Editor Manufacturers' Record:*

The Gadsden Alabama Furnace Company was organized January 22, 1887; capital, \$200,000. A 100-ton furnace will be erected at Gadsden, Ala., at once. We will also erect another furnace (charcoal) at same time.

W. M. MEEK.

### Car Works for Gadsden.

GADSDEN, ALA., Jan. 28, 1887.  
*Editor Manufacturers' Record:*

Car works will be built here. Work will be commenced as soon as organization is perfected and charter obtained. Capital from Chattanooga and Birmingham will be largely interested.

R. B. KYLE,

President G. L. & Impt. Co.

### 43,000 Acres of Coal Land to be Developed.

TUSCALOOSA, ALA., Jan. 27, 1887.  
*Editor Manufacturers' Record:*

The Tuscaloosa Coal, Iron & Land Co. has closed the purchase of forty-three thousand acres of coal land lying in the northern part of Tuscaloosa county in the Warrior Coal Fields. The lands begin a few miles out of this city and stretch towards the Georgia Pacific Railroad, about forty-five miles north of this point. The Tuscaloosa C. I. & L. Co. will begin at once the survey of a railroad to be built from Tuscaloosa through these lands. When this road has been completed eight or ten miles to the nearest of the lands purchased, the company will begin opening mines. The work will be pushed as rapidly as possible.

W. C. JEMISON.

### To Build Two 50-Ton Furnaces.

DECATUR, ALA., Jan. 25, 1887.  
*Editor Manufacturers' Record:*

The Chemical Charcoal Co. will build immediately two 50-ton iron furnaces in connection with their plant.

W. C. PRESTON.

### Will Erect a Cotton Mill.

MT. AIRY, N. C., Jan. 24, 1887.  
*Editor Manufacturers' Record:*

I will begin the erection of a cotton mill near Mt. Airy in the near future.

A. J. THOMPSON.

### To Build Large Pipe Works.

ANNISTON, ALA., Jan. 26, 1887.  
*Editor Manufacturers' Record:*

We are now taking steps to organize a company here to build pipe works, with \$200,000 capital. The stock has all been subscribed by responsible parties, and the works, we think, are a certainty.

JNO. M. MCKLERDY,

President Anniston City Land Co.

### Machine Shops to be Enlarged.

ASHLAND, KY., Jan. 27, 1887.  
*Editor Manufacturers' Record:*

Ashland Foundry and Machine Shops are to be enlarged by April 1, 1887. Stoves of every description will be made in the foundry and heavy castings for machinery. This will be one of the largest shops in the northern part of the State.

W. W. PATTERSON.



**To Mine Coal and Manufacture Coke.**

JASPER, TENN., Jan. 24, 1887.

*Editor Manufacturers' Record:*

The Pine Mountain Coal, Iron, Land, Railroad & Manufacturing Co. has been organized with a \$500,000 capital, by J. C. Wall, of Stevenson, Ala.; J. W. Wall, of Huntsville, Ala.; J. R. Stevens, of Huntsville, Ala.; M. J. O'Shaughnessy, of Huntsville, Ala.; and J. F. O'Shaughnessy, of New York, N. Y. Their object is to mine coal and burn coke on an extensive scale near South Pittsburg, Tenn. This company owns between six and seven thousand acres of the best coal and iron lands in the State of Tennessee. The greater part of their land is on the Cumberland mountain and in Sequachee valley. The company has graded nearly a half mile of narrow gauge railway, which is now ready for the ties and rail. They are driving four main entries into the coal and it is proving to be a fine quality of coal. The following being an analysis recently made by Prof. A. F. Brainard, of Birmingham, Ala.: Moisture 3.06; volatile 18.40; fix'd carbon 74.974; sulphur .576; ash 2.990. This vein of coal runs from three to six feet in thickness. The company has another fine vein of block coal that runs three feet even in thickness and is known in this section as the Battle Creek coal. The building of one mile standard gauge railroad will begin by the 1st of February. Also the erection of shops for the company's use, a hotel, and a number of houses for employees. WM. A. WALL, Ass't Supt. P. M. C. I. L. R. R. & Mfg. Co.

**Developing Copper Mines.**

BLUE WING, N. C., Jan. 27, 1887.

*Editor Manufacturers' Record:*

A 80-ton copper smelting plant will be erected here this coming summer, with the best and latest improvements, with refining furnaces. These mines have been worked for two years and six months. From three to five hundred tons of ore are on the dump, and 15,000 to 20,000 tons in sight. The veins are from 2 to 6 feet thick, standing at 80 degrees and assaying on an average from 16 to 30 per cent.; the walls are well defined and regular, and are what is termed in geology contact veins. These veins often run for a great distance in length, and have never been known in the history of mining record to pinch out or the bottom to be reached. This belt was examined several years ago by Dr. Emmons, then State geologist. He said that it would some day prove a mineral district of vast importance. These developments now in progress prove that Dr. Emmons was correct.

The Durham, Blue Wing & Clarksville Railroad Co. are building a new road from Clarksville to Durham, passing within 100 feet of these mines. Seven or eight miles have been graded, and several thousand ties are along the line. The company expect to finish and have cars on about the 1st of June, which will give an outlet to these mines. Parties from Philadelphia have purchased large tracts of land here, holding veins of copper, and several syndicates have been organized, who have experts here, and are locating mines. Several new companies have been organized, capitalized at from \$300,000 to \$500,000, and there will be beyond a doubt many mines worked and smelters built in the near future. This will be one of the most important copper-producing districts in America, or in the world.

W. RAKER.

**Doubling Capacity Ice Factory.**

PINE BLUFF, ARK., Jan. 25, 1887.

*Editor Manufacturers' Record:*

We are now putting in a new ice machine, which will double our capacity.

DISTILLED WATER ICE CO.,

J. F. HICKS, Proprietor.

**Iron Pipe, &c., Wanted.**

TAMPA, FLA., Jan. 26, 1887.

*Editor Manufacturers' Record:*

On the 3d of February I shall present to the city council an offer to build water works for the city, to cost fully \$40,000. If I should succeed in getting the franchise I shall need twenty thousand feet of 6 and 12 inch iron pipe, and I am in hopes that I will be able to procure said pipe from some Southern concern. Would like to have address of all Southern pipe foundries. Another scheme is up; D. A. Moon and myself, under the firm of D. A. Moon & Co., Tampa, Fla., will introduce by March 1st in the market, a patent colter for one and two horse plows. This colter will enable the operator to turn over successfully, weeds, grass and vines, something which has never been done before. The little tool will make its way to every farm in less than two years. I want to get a good foundry to make them, and would like to get half dozen good names.

R. MUGGER.

RICHMOND, VA., Jan. 27, 1887.

*Editor Manufacturers' Record:*

We are pleased to state that our loss was not so great as stated by some papers. We will start up our sash and blind factory again in a few days.

WHITEHURST &amp; OWEN.

DENTON, KY., Jan. 27, 1887.

*Editor Manufacturers' Record:*

I am going to move my spoke works to Ashland, Ky., during this year and increase my capacity double.

J. D. WILLIAMS.

**Will Build a Tobacco Factory.**

BLOOMINGDALE, TENN., Jan. 26, 1887.

*Editor Manufacturers' Record:*

I am to build a tobacco factory. A part of the material is ready now. J. F. HOWARD.

**Two Roller Flour Mills.**

ALAMO, TENN., Jan. 25, 1887.

*Editor Manufacturers' Record:*

A company composed of J. F. Robertson, W. W. Crandell, T. H. Durham and J. W. Murchison have contracted for the erection of a 50-barrel, full roller process mill, with five stands of double rolls and all necessary machinery for such a mill. Same company are building a 75-barrel mill at Crockett Mills, this county.

F. B. FISHER.

OBENSHAIN, VA., Jan. 25, 1887.

*Editor Manufacturers' Record:*

I am now engaged in opening up my mines, but for sale only. I do not expect to work them myself. I have, by analysis, gold and silver in paying quantities. The same ore has followed in the adjoining lands in a large area. My son, M. D. Obenshain, expects to manufacture washboards, axe helves, shovel handles, &c., in the spring. We are forming a joint stock company for fruit canning and vegetables.

SAMUEL OBENSHAIN.

LOUISVILLE, KY., Jan. 27, 1887.

*Editor Manufacturers' Record:*

Walnut Street Baptist Church is now building a \$25,000 house of worship for one of our missions at 22d and Walnut streets, in this city. We will in a few weeks begin a house of worship on corner of 4th and Oak, to cost from \$75,000 to \$100,000.

T. T. EATON, Pastor.

**Erecting a Saw Mill.**

PANTEGO, N. C., Jan. 25, 1887.

*Editor Manufacturers' Record:*

I am putting up a boiler, engine, &c., for the purpose of putting in a saw mill and other machinery, and expect to have it running by 1st of March next.

W. J. BULLOCK.

**Will Build a \$10,000 Church.**

DALLAS, TEXAS, Jan. 25, 1887.

*Editor Manufacturers' Record:*

The First Congregational Church, of Dallas, expects to erect a new church building this year, to cost \$10,000.

C. I. SCOFIELD, Pastor.

FLORENCE, ALA., Jan. 26, 1887.

*Editor Manufacturers' Record:*

The land company has directed that a large 3-story iron and brick, or marble and brick, building be erected—1st floor storehouse, 2d floor hall, 66x157, and 3d floor company's offices, &c.

H. C. WOOD.

CHICAGO, ILL., Jan. 26, 1887.

*Editor Manufacturers' Record:*

We are seriously considering the matter of starting works in the South, and might locate at Montgomery, Ala., although nothing positive has been done as yet.

VAN DE PEOLE ELECTRIC MANF. CO.

**Erected a Saw Mill.**

LARKINSVILLE, ALA., Jan. 26, 1887.

*Editor Manufacturers' Record:*

I have just purchased a 20 horse-power saw mill. I now have it in operation.

W. C. STEPHENS.

LA GRANGE, N. C., Jan. 26, 1887.

*Editor Manufacturers' Record:*

I shall open an establishment in a few days for the manufacture of buggies, wagons, carts, &c.

J. S. BIZZELL.

CLARKSBURG, W. VA., Jan. 28, 1887.

*Editor Manufacturers' Record:*

Our county will commence on April 1, 1887, to build a new court house costing \$46,650. G. W. Bunting, Indianapolis, Ind., is the architect, and G. W. L. Mayes, Fairmont, W. Va., is the contractor.

JAMES MONROE, Clerk.

**New Machinery.**

NASHVILLE, TENN., Jan. 27, 1887.

*Editor Manufacturers' Record:*

The Fulcher & Dyas Brick Company, organized under their charter on 22d inst., having purchased the brick yard and appurtenances of Fulcher & Dyas. New machinery will be put in to double the production, and further enlargement contemplated in the future.

A. J. DYAS, Sect'y and Treas.

MORGANTON, N. C., Jan. 25, 1887.

*Editor Manufacturers' Record:*

I may put up a sash, door and blind factory this spring. Will not build furniture factory under 8 months.

ALEX. W. WILSON.

**Will Build a Stave Mill.**

BUCKHANNON, W. VA. Jan. 31, 1887.

*Editor Manufacturers' Record:*

Morrison & Co. will build a stave mill here at once; they expect to commence work on the plant this week.

TOM. G. BRADY.

**To Erect a Dye House.**

DURHAM, N. C., Jan. 31, 1887.

*Editor Manufacturers' Record:*

We have ordered the lumber, and as soon as it arrives will begin work on our dye house. Our president, Mr. J. M. Odell, is now North buying the machinery for same.

W. H. BRANSON, Sec. &amp; Treas.

GREENSBORO, N. C., Jan. 31, 1887.

*Editor Manufacturers' Record:*

We will build a new depot here, 56x100 feet, two stories high, at a cost of about \$4,000.

CAPE FEAR &amp; YADKIN VALLEY R. R.

R. P. GRAY, Sec. &amp; Treas.

**Will Start a Furniture Factory and Veneer Works.**

LOUISVILLE, KY., Jan. 27, 1887.

*Editor Manufacturers' Record:*

Our company will be the Astoria Veneer Mills and Lumber Co. We will manufacture veneers and lumber and deal in logs of all kinds.

ASTORIA VENEER MILLS &amp; LUMBER CO.

**To Rebuild Cracker Factory.**

SAVANNAH, GA., Jan. 28, 1887.

*Editor Manufacturers' Record:*

I am rebuilding, that is, I am clearing up to get ready to build.

J. H. RUWE.

**Will Rebuild Shot Works.**

NEW ORLEANS, LA., Jan. 27, 1887.

*Editor Manufacturers' Record:*

We will go right ahead and rebuild as soon as possible, and, if anything, increase our capacity. The damage is not very great and we will soon be in trim again.

GULF SHOT &amp; LEAD CO.

CEDAR HILL, TENN., Jan. 29, 1887.

*Editor Manufacturers' Record:*

The Florence, Birmingham & Chicago Railroad has been chartered in Tennessee and Alabama. It will run from Jackson or Milan, Tenn., to Florence, Ala. Much aid has been subscribed along the route, and the prospects are flattering for the early building of the road, which will run through the heart of the iron region of Wayne county, connecting the ore beds with Florence, and giving the Illinois Central and Mobile & Ohio Roads a short route to this rich territory.

J. E. WASHINGTON.

**Want to Purchase a Rolling Mill.**

SELMA, ALA., Jan. 26, 1887.

*Editor Manufacturers' Record:*

A company here wishes to purchase a merchant rolling mill. Can any of your readers give us figures on the whole outfit? We want to work up wrought scrap.

UNION IRON WORKS CO.

BEAR, ARK., Jan. 26, 1887.

*Editor Manufacturers' Record:*

The Bear Mountain Mining Co. have shipped two samples of 500 lbs. each of their Golden Wonder and Mammoth ore to Meech & Co., Cleveland, Ohio, for mill run. If the test is satisfactory as regards the adaptability of their machinery, the company will no doubt put in one of their plants.

A. M. BEAM.

**Boiler Shop Needed.**

SELMA, ALA., Jan. 28, 1887.

*Editor Manufacturers' Record:*

One of the greatest needs of this place is a good, responsible and reliable boiler shop, where repair and new work can be done with promptness and at reasonable figures.

UNION IRON WORKS CO.

STRAWBERRY PLAINS, TENN., Jan. 31, 1887.

*Editor Manufacturers' Record:*

I am engaged in the organization of a company to mine and quarry marble located on my lands in almost inexhaustible quantities. Will begin operations as soon as organization is complete. Correspondence solicited.

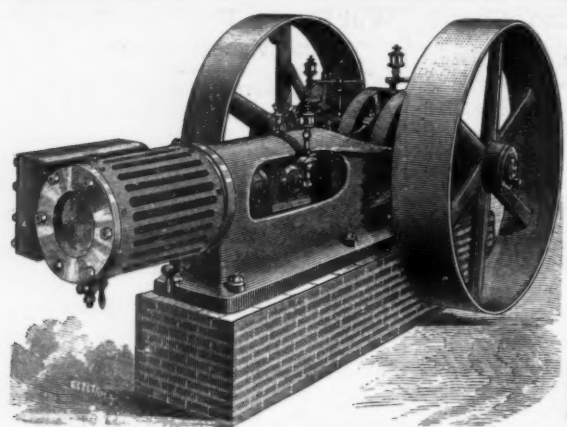
JOHN. M. MEEK.

GRAHAMVILLE, FLA., Jan. 29, 1887.

*Editor Manufacturers' Record:*

A company, to be known as the Delks Bluff Moss Co., has been organized, and will be in operation very soon. Our capacity will be about 1 ton of finished moss per day.

O. H. EDWARDS.



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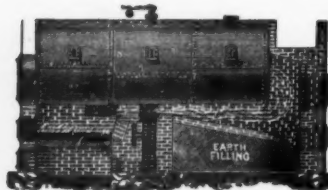
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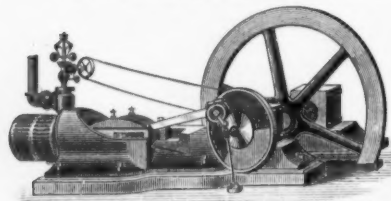
A. F. UPTON, Treas. and Gen'l Manager,  
61 Oliver St., Boston, Mass.

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Ettrick, Matoca and Battersea Mfg. Co's.,  
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Sibley Mills, Augusta, Ga.

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Charleston Boring Co., Charleston, S. C.  
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bus, Ga.  
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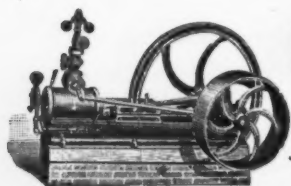
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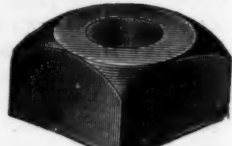
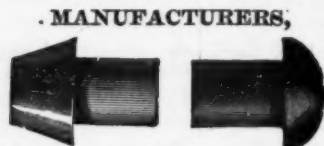
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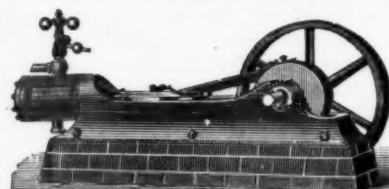
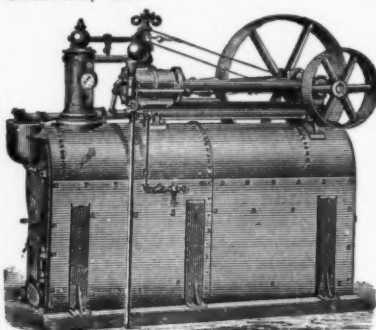
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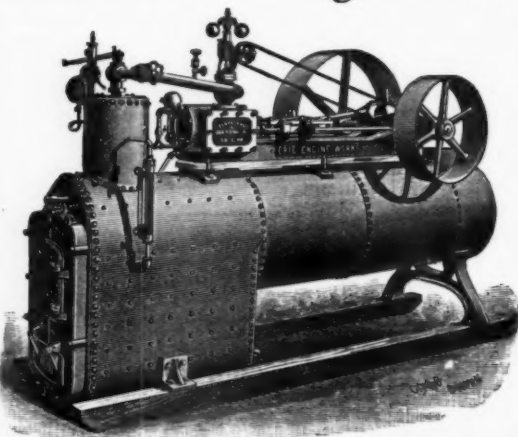
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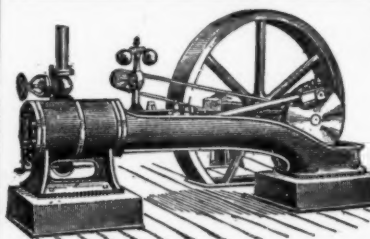
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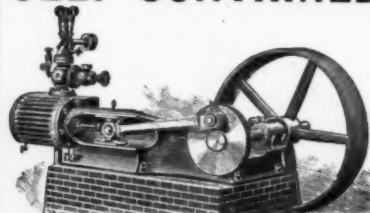
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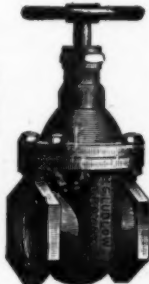
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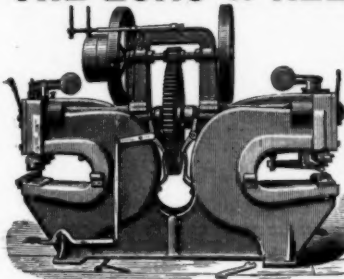
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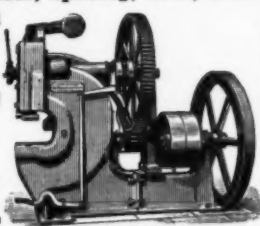
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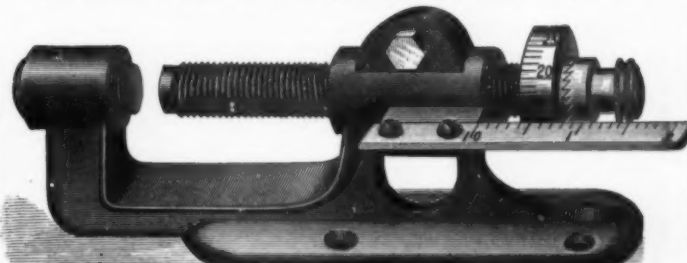
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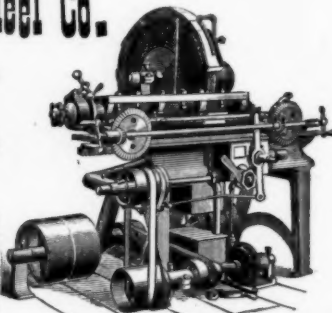
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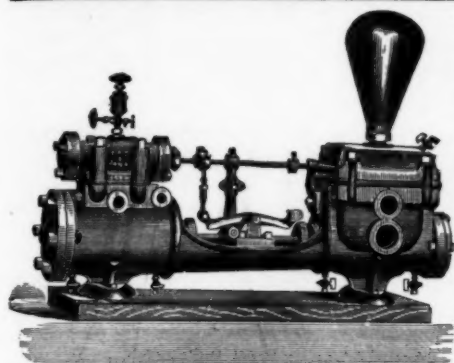
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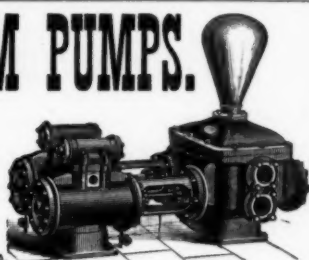
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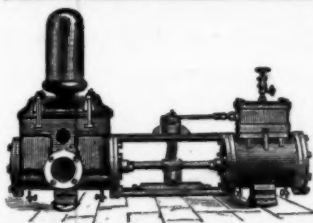
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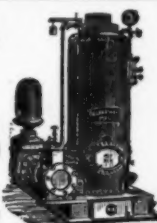
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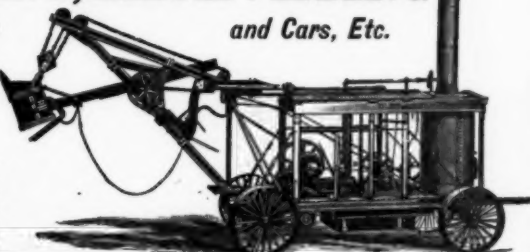
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**The Simplest WATER WHEEL** on the market. **The Most Perfect SAW MILL**, Simple, and pronounced by all The Best.

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Founders and Machinists, ATLANTA, GA.

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Large and well-selected stock at low prices and on liberal terms. Write for catalogue. **ATLANTA, GA.**

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**Bobbins, Spools, Skewers & Shuttles,**

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A Southern Enterprise, with new Mills, fully equipped with all Modern Machinery, and all work guaranteed. Mention this Paper in corresponding.

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**COTTON MILL SPECIALTIES.**

Roller Covering, Loom Pickers and Strapping.

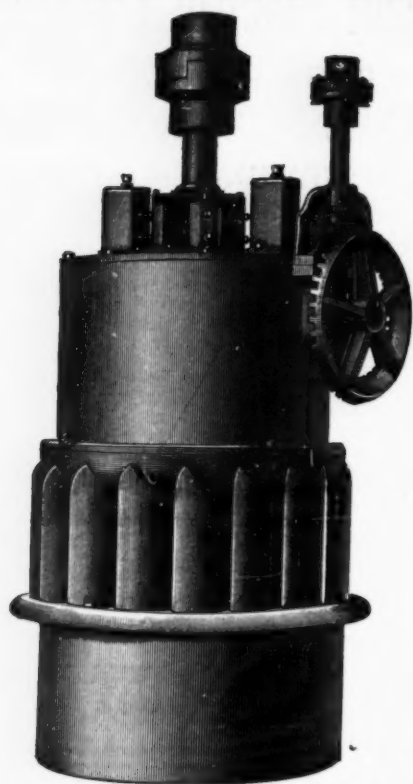
Dealers in Roller Coverers, Stock and Tools; Cotton and Woolen Mill Supplies.

Full Line "Hick's" United States Standard Ring Travelers, Mill Wire Goods, Spring Cotters, Belt Hooks, Lacing, &c., kept constantly on hand.

Wrought Iron Pipe Fittings and Brass Goods. Southern Agents for the celebrated "B. C. & D. Oak Tanned Patent Lap Belting, Galvin Compound Wedge Gate Valve, Imhauser's Watchman Time Detectors, Diamond Emery Wheel Machine Co., &c.

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# THE "HERCULES"



**GET THE BEST.**

A good Water Wheel increases the value of your whole plant.

Get the best at first and avoid the expense and delay of changing wheels.

A good wheel will serve you well for twenty years.

The best is the cheapest,—it does more work, lasts longer, and costs no more for gears and setting than a common wheel.

The HERCULES gives the most power for its size, and the highest average percentage from full to one-half gate, of any wheel ever made.

SEND FOR CATALOGUE NO. 3.

**HOLYOKE MACHINE CO., WORCESTER, MASS.**

## Wheels Now in Use in Holyoke, February 1st, 1885.

Name of Wheel.	Number.	Horse-Power Furnished.
Hercules.....	53	10,576
Boyd.....	38	5,398
American.....	10	825
Tyler.....	10	311
Hunt, Waite & Flint.....	7	375
Rifdon.....	6	440
Jonval.....	4	655
Swain.....	1	160
New American.....	1	65
Aousten.....	1	75
Victor.....	2	150
Total.....	133	19,030

**EAGLE & PHENIX MANUFACTURING CO.,**

COLUMBUS, GA., Feb. 25, 1885.

HOLYOKE MACHINE CO., STEPHEN HOLMAN, Treas.:

Dear Sirs—Within the past four years I have ordered four "Hercules" wheels, all of which have given the purchasers entire satisfaction. Three of the wheels are on regular duty in the Eagle & Phenix Mills. The first wheel ordered did so well that a "Hercules" wheel has been added each time a new wheel was wanted. In Eagle & Phenix Mills I supervise twenty water wheels of six different styles. The "Hercules" is by far the most durable and best made wheel in use here, and, in fact, I know of no wheel its equal, mechanically. It is all that can be desired in economy of water. In fact, it is a strictly first-class wheel in every way, and the wheel to buy, use and depend upon. Yours truly, JOHN HILL.

## CONNECTICUT RIVER PULP MILL.,

HOLYOKE MACHINE CO. HOLYOKE MASS., November 24, 1884.

We are now using 22 "Hercules" wheels, under heads from 12 to 40 feet, and they have always given satisfaction. We have used a variety of Turbines, but where economy in the use of water is required nothing equals the "Hercules." In every respect they are first class.

D. H. & J. C. NEWTON.

## GEORGE R. DICKINSON PAPER CO.,

HOLYOKE MACHINE CO. HOLYOKE, MASS., December 17, 1884.

Gentlemen—We started our mill with three "Hercules" wheels. We raise the gates Monday morning and close them Saturday night. They have never cost us a cent for repairs nor caused us a moment's delay. We want nothing better. Yours very truly, GEORGE R. DICKINSON, Treas.

## Information about the South.

THE marvelous mineral and timber wealth of the Southern States, their unrivalled capabilities as a manufacturing area, and the astonishing progress they are making in developing their natural resources and in utilizing their facilities for manufacture, are attracting the attention of the whole world. The extent of these resources and advantages is so fully and carefully set forth, and the progress of this development so faithfully chronicled from week to week in the MANUFACTURERS' RECORD, that it is now accepted everywhere as unquestioned authority on Southern affairs, and its statistics and statements are drawn upon by almost every writer or speaker on any Southern topic.

Its weekly issues constitute an authentic history of the industrial progress of the Southern States. It furnishes every week a vast variety of information on Southern affairs that can be gained from no other source. It discusses in its editorial columns and in its correspondence every topic of Southern interest. It presents the resources and development of the South in all their phases. To all who are in any way interested or concerned in the prosperity of the South, or who care to keep posted as to the industrial and commercial progress of that section, the MANUFACTURERS' RECORD is indispensable.

It has a constantly increasing circulation among capitalists and others in the North and West, who desire to keep informed as to Southern affairs.



## Literary Notes.

ONE of the most attractive 1887 calendars that we have yet seen is the one issued by Messrs. Geo. Draper & Sons, Hopedale, Mass. From the first to the last page it is a most beautiful piece of work, and it should find a place in every cotton mill in the country. It will be sent free upon application.

JANUARY PANSY is a royal number. The leading stories, "Monteagle," by Mrs. G. R. Alden (Pansy), "The Little Red Shop," by Margaret Sidney, "A Sevenfold Trouble," told by seven people who knew of it, are strong, helpful, and graphic. The number contains also short stories, poems, and sketches. Noticeable among these is Our Alphabet of Great Men, which gives an excellent biography of Daniel Webster, with portrait. There is, too, a sketch of Faye Huntington, written by Rev. J. W. Sanborn, in which he recounts a pleasant visit to the home of this well-known woman; another on Marie Antoinette, and a pleasant story told by Mary E. Metheny, missionary in Tarsus, Asia Minor. Illustrated. D. Lothrop & Co., Boston. \$1.00 a year.

## TRADE NOTES.

MR. JNO. T. COLEMAN, the well-known boiler-maker, is having good success in handling the Reliance Safety Water Columns in Baltimore, and we doubt not that equal success awaits energetic firms who take hold of these goods in other Southern cities.

ENTERPRISE and good management are bound to be productive of a healthy growth. At least this has proved true with the Buffalo Hammer Co., Buffalo, N. Y., who have recently removed to their handsome new works, Nos. 1541 to 1551 Niagara street, Black Rock, a manufacturing suburb of Buffalo, where they now have ample facilities for supplying the rapidly increasing demand for their line of goods. The business of this company was founded in 1873 and has been steadily increasing until it was found necessary to remove to larger quarters, and the new plant was pushed to completion. The shops, warerooms and office cover about 10,000 feet and contain nearly 20,000 square feet of floor space. The motive power is supplied by two engines of 80 and 60 horsepower and the works are fully equipped with the latest and most improved machinery in every department, and none but the most skillful mechanics are employed. This firm manufactures a complete line of solid cast-steel hammers of every description and for every trade; blacksmiths' sledges, mason hammers, railroad and quarry picks, etc.; also a complete line of superior quality hatchets. A new 64-page catalogue, fully illustrated, has just been issued, and will be sent to hardware dealers, mining and railway supply companies upon application. All communications should be addressed to Buffalo Hammer Co., Buffalo, N. Y.

The Locomotive, published by the Hartford Boiler Insurance Company, says: "The great influence which the circulation of the water in a steam-boiler, when it is in operation, exercises upon its efficiency, its tendency to foul up, and its liability to various annoying defects, does not seem to be fully understood or appreciated by many to whom it is of the greatest importance. Were it not for the fact that heat applied to the under side of a body of water is communicated to it, thereby expanding it and causing it to rise through the colder water above, and producing a circulation, it would be practically impossible to generate steam in the ordinary manner. The efficiency of any given area of heating surface depends almost wholly upon the perfection of the circulation of the water in contact with it. This will probably be better appreciated

when it is stated that the experiment has been performed of immersing a cubical metallic box in water and heating it from the inside. The horizontal upper surface of the box generated more than twice as much steam per square foot of surface as the perpendicular sides, while the bottom or lower side generated none at all. This was due to the fact that the steam bubbles or vesicles formed in contact with the upper surface, had nothing to interfere with their prompt liberation from that surface; heated water was equally free to rise, its place being immediately filled by a fresh of colder water, thus forming a rapid circulation; the operation went on with greater difficulty in contact with the vertical surfaces, while with the lower horizontal surface, the steam as formed would have a tendency to hug the surface, and prevent the contact of water with it, thus effectually preventing any circulation. When these facts are appreciated it will readily be seen how essential it is to the proper performance of a boiler that the water-spaces should be large, and as free from obstruction as possible, in order that the water may have opportunity to circulate rapidly, and the steam when formed be disengaged as freely and quietly as possible. Comparatively few years ago, it was the universal practice to crowd as many tubes into a horizontal boiler as could be got on into it. They were set in zig-zag rows, to enable the greatest number to be put into a given space, on the theory that the more heating surface the more steam the boiler would make, and the natural consequence was the spaces between tubes, and between tubes and shells, soon became filled up with scale and sediment, the result being overheated plates, and leaky seams and tubes, while the steaming capacity of the boiler was greatly reduced. Of late years, however, the fact is beginning to be appreciated that tube surface is not heating surface, unless it has plenty of room to act as such, and consequently the number put into boilers of any given size is less; they are arranged in a more rational manner, and as a natural result the boiler steams better, and is more easily kept clean, less repairs are necessary, and the life of the boiler is greatly prolonged." B. W. Payne & Sons, Elmira, N. Y., now manufacture an improved vertical boiler which fulfills these requirements. Send to them for a description. Address Box 1018, Elmira, N. Y.

THE Reliance Gauge Co., of Cleveland, Ohio, write that the sales of their Safety Water Columns are rapidly growing, and have already extended from San Francisco to Boston and from Toronto to New Orleans, and the intermediate territory is now falling into line. They report business particularly good in some parts of the South.

## Important.

When visiting New York city, save baggage express and carriage hire, and stop at the Grand Union Hotel, opposite Grand Central Depot.

600 handsomely furnished rooms at \$1 and upwards per day. European plan. Elevators and all modern conveniences. Restaurants supplied with the best. Horse cars, stages and elevated railroads to all depots. You can live better for less money at the Grand Union Hotel than any other first class hotel in the city.

THE American House, Boston, has been long and favorably known as one of the best hotels in the East. Its central location makes it equally desirable for business or pleasure.

## Morrison's Practical Engineer.

A concise treatise on Steam and General Machinery. Also Practical Tests on Electric Lighting. 172 pp. Second edition, revised and improved. Mailed on Receipt of \$1.00.

W. A. MORRISON,  
Box 373. LOWELL, MASS.  
Mention this paper,

## List of Patents.

The following Patents were granted to citizens of the Southern States, bearing date Jan. 25, 1887. Reported expressly for this paper by Louis Bagger & Co., Mechanical Experts and Solicitors of Patents, Washington, D. C.

Brown, M. T., Tyler, Texas. Baling-press... 356,445  
Brunson, W. M., Darlington, S. C. Plow... 356,705  
Castleberry, E. F., Reaves, Ala. Plow for cultivating corn or cotton... 356,446  
Cox, J. C., and W. F. Black, Louisville, Ky. Semaphore... 356,573  
Davis, C. C., Mercer, S. C. Churn... 356,625  
Ezell, J. S., Woodruff's, S. C. Insect-catching attachment for lamps... 356,629  
Firth, T. R., Newport, Ky. Gas-regulator... 356,684  
Gaskill, D. W., Little Rock, Ark. Cotton-gin... 356,463  
Gillock, I. N., Horse Cave, Ky. Car-coupling... 356,685  
Goodwin, T. E., Nashville, Tenn. Sawing and grinding machine... 356,583  
Greer, J. W., Austin, Texas. Fare-box... 356,465  
Hopkins, H. C., Jr., Covington, Ky. Clothes wringer... 356,641  
Howell, G. W., Covington, Ky. Wheel... 356,613  
Hyde, H. W., Summit, Fla. Traction-wheel... 356,472  
Kemp, C. M., & C. E., Baltimore, Md. Fluid ejector... 356,647  
Lavercome, F. A., Covington, Ky. Lamp... 356,480  
Lloyd, Stephen, Darlington, S. C. Tonic pill... 356,723  
Piver, J. W., Americus, Ga. Plow... 356,548  
Rahn, Philip, New Orleans, La. Rice-pounder... 356,501  
Russell, E. B., Bardonia, Ky. Gate... 356,602  
Sanford, M. M., Forksville, La. Car-coupling... 356,506  
Wainwright, G. H., and P. J. Royal, Wilson, N. C. Cultivator... 356,608  
Watson, J. O., and C. A. Sipe, Fairmount, W. Va. Wedge for mining coal... 356,564

A. P. THAYER,  
Solicitor of U. S. and Foreign  
PATENTS,  
No. 86 Astor House, New York.

Experience of Over 20 Years.

## WIRE RAILING

and Ornamental Wire Works.

DUFUR & CO. 36 N. Howard St., Baltimore  
Wire Railing for Cemeteries, Lawns, Gardens, Offices and Balconies; Window Guards, Tree Guards, Wire Cloth, Sieves, Fenders, Cages, Sand and Coal Screens, Iron Bedsteads, Chairs, &c.

Established 1793.

## H. BALDERSTON &amp; SON,

MANUFACTURERS OF

## WIRE GRATING FOR WINDOWS

Doors and Office Railing, Wire Screens for Banks, Churches and Store-Fronts. Woven Wire, Wire Tree-Guards, Sieves, Screens for Coal, Sand, &c.

122 S. Calvert Street, Baltimore.

1887.

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Illustrated & Catalogue,

1887 ISSUE,

of

ROLLER CHAIN BELTING

AND ITS APPLIANCES,

Will be Sent on Application.

It is of special value to all Mill Men, Brewers, Malsters, Millwrights, Tanners, and in fact all Manufacturers.

ROLLER CHAIN BELTING CO.  
COLUMBUS, OHIO.

1887.

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PRINTED SUPPLIES  
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Publishers of The Manufacturers' Exchange.  
A. MUGFORD, Hartford, Conn.

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Contractor for

IRON BUILDINGS AND IRON ROOFS

Corrugated and Galvanized

IRON WORKS,

44 Centre Street,

Established 1867.

NEW YORK CITY.

## HOW TO KEEP BOILERS CLEAN

And Prevent SCALING, FOAMING, BURNING. Price \$75.00. Removes Lime, Oil, Magnesia, without use of Compounds.



Hotchkiss Mechanical Boiler Cleaner. Illustrated in an eighty-eight page book, which will be mailed FREE, to any address, by JAS I. HOTCHKISS, 98 JOHN ST., N. Y. Beware of imitations.

DON'T BUY AN ENGINE OR BOILER Until you have seen our circulars. Engines complete from \$250 for 15 Horse Power to \$550 for 60 Horse Power.

Boilers of every style. Automatic Engines for Electric Lights. Centrifugal Pumping Machinery for Drainage or Irrigation. Established 22 years. Perfect satisfaction guaranteed. Address for circulars, MORRIS MACHINE WORKS, Baldwinsville, N. Y.

BUENA VISTA IRON PROPERTY,

—IN—

ROCKBRIDGE CO., VA.,

On the Shenandoah Valley and Richmond & Alleghany Railroads,

FOR SALE.

Two good locations for large Steel or Iron Furnaces; 11,500 acres in the tract; covers 5 miles of the Blue Ridge mineral belt; analysis of iron ore show from 50 to 60 per cent. of metallic iron; iron ore veins well developed, showing large quantities of good ore; flattering indications of manganese and tin; unusually good railroad facilities for reaching 4 or 5 large coal fields, affording decided advantages in procuring cheap fuel. Address,

C. F. JORDAN,  
Green Forest,  
ROCKBRIDGE CO., VA.

## TO ADVERTISERS!

For a check for \$20 we will print a ten-line advertisement in One Million issues of leading American Newspapers and complete the work within ten days. This is at the rate of only one-fifth of a cent a line, for 1,000 Circulation! The advertisement will appear in but a single issue of any paper, and consequently will be placed before One Million different newspaper purchasers;—or FIVE MILLION READERS, if it is true, as is sometimes stated, that every newspaper is looked at by five persons on an average. Ten lines will accommodate about 75 words. Address with copy of Advt. and check, or send 30 cents for Book of 126 pages. GEO. P. ROWELL & CO., 10 SPRUCE ST., NEW YORK.

We have just issued a new edition (the 161st) of our Book called "Newspaper Advertising." It has 176 pages, and among its contents may be named the following Lists and Catalogues of Newspapers:—

DAILY NEWSPAPERS IN NEW YORK CITY, with their Advertising Rates.  
DAILY NEWSPAPERS IN CITIES HAVING more than 150,000 population, omitting all but the best.  
DAILY NEWSPAPERS IN CITIES HAVING more than 20,000 population, omitting all but the best.  
A SMALL LIST OF NEWSPAPERS in which to advertise every section of the country; being a choice selection made up with great care, guided by long experience.

ONE NEWSPAPER IN A STATE. The best one for an advertiser to use if he will use but one.

BARGAINS IN ADVERTISING IN DAILY Newspapers in many principal cities and towns. A List which offers peculiar inducements to some advertisers.

LARGEST CIRCULATIONS. A complete list of all American papers issuing regularly more than 25,000 copies.

THE BEST LIST OF LOCAL NEWSPAPERS, covering every town of over 5,000 population and every important county seat.

SELECT LIST OF LOCAL NEWSPAPERS, in which advertisements are inserted at half price.  
5,493 VILLAGE NEWSPAPERS in which advertisements are inserted for \$41 a line and appear in the whole lot—one-half of all the American Weeklies.

Sent to any address for THIRTY CENTS.





Each copy of "El Anunciador" is mailed in a separate wrapper to its destination where it is eagerly scanned by consumers who depend on America for many articles. Advertisers who have tested the merits of this paper speak in the most flattering terms of it as a medium. For rates and further information address Dumont & Co., 10 and 12 Old Slip, near Hanover Square, New York.



# MINING NOTES.

By T. K. BRUNER, Raleigh, N. C.

## MADISON COUNTY.

The mineral wealth of Madison county, acknowledged to be great, cannot be fairly estimated now. The casual observation of skilled experts and the occasional visits of noted men of science all point to a region rich in nature's gifts. Why a county possessing great unexplored beds of magnetic and other iron ores, corundum of good quality, baryta in abundance and great cliffs of lime, why such a region should remain so long undeveloped can hardly be accounted for. The comparatively recent penetration of that part of the State by the great iron horse, and the fact that the railroad hugs the banks of the French Broad river all the way across the county may be considered among the causes which have contributed to the negligence of the development of that whole section. The further fact that the counties west of Madison have been considered better for mineral fields research may also have contributed to this neglect by diverting explorers.

## A NEW CORUNDUM MINE.

Some enterprising Northerners have opened a new corundum mine near the dividing line between Buncombe and Madison counties, and have begun operations on an extensive scale. They are taking out this valuable mineral in considerable quantities, and have recently received a large plant of reduction machinery, which is being put into position. They have also built "separators," or washers, for cleaning the ground corundum. This is at present the only activity in the county.

There has been considerable work done at the Baryta Mills, below Marshall, but the severity of the winter has made operations there undesirable.

Madison is famed for its warm springs—a place noted as a health and pleasure resort, and for the beauty of its surroundings.

## TRANSYLVANIA IRON.

Transylvania is one of those rugged mountain counties which depends exclusively on what it has not got for development, i. e., a railroad. At present it is about 20 miles to the nearest depot from Brevard—the county town.

The prospect of a railroad has stirred the people to some activity. The proposed Atlanta, Asheville & Baltimore Railroad will bisect the county in a line conforming with the trend of the mountains. The Georgia legislature has granted a charter to the company to build, and the legislature of this State will do the same thing in a few days. The proposed line will touch the counties of Macon, Jackson, Transylvania, Buncombe, Madison, Yancy, Mitchell, Watauga, Ashe and Alleghany. It is a grand scheme—one that will require both money and energy.

But let us get back to the minerals. Before the war and during part of the time of hostilities there was in operation in this county a small furnace known as the

## DAVIDSON RIVER IRON WORKS.

The product was limited to a neighborhood trade. The ore used at this furnace came from a source which was considered as practically inexhaustible, and was considered by the natives as far superior to any other iron to be found. One of these enthusiasts went so far as to say that a tire for a wagon wheel made of this iron would last as long as three made from Swedish iron. This must have its full grain of allowance, yet there seems to be no doubt as to the superior tensile strength and malleability of this iron.

This and other valuable deposits of mineral will be placed in reach of the world by this proposed road.

## CABARRUS GOLD HUNTERS.

The recent finding of a 13-ounce gold nugget of remarkable purity in Cabarrus

county has put the petty branch miners to work in earnest. The nugget referred to was found by Chas. Moore, a placer miner, and sent to the United States Assay Office, at Charlotte, where it brought \$20 an ounce, or \$260 for the nugget. It came from near Pioneer Mills, and was remarkably free from impurities, and having only a partice of silica attached of the size of a grain of sand.

## MACHINERY.

From all parts of the State comes the report that mining machinery is being placed in various mining districts. Not less than \$100,000 worth has arrived this month.

## To Build 100 Houses.

SOUTH PITTSBURG, TENN., Jan. 27, 1887.

### Editor Manufacturers' Record:

It is the intention of this company to erect one hundred houses between now and the 1st of June. The Perry Stove Works are progressing rapidly. One of the main buildings of the pipe works is completed; the other far on the way. They have completed twenty-four residences for their employees.

SOUTH PITTSBURG CITY CO.

G. C. CONNOR, Secy. and Manager.

## To Build Water Works.

FARMVILLE, VA., Jan. 29, 1887.

### Editor Manufacturers' Record:

The Farmville Water Co. has just been chartered, and hope within the next year to bring water five miles from a group of four springs, having capacity of 175,000 gallons every 24 hours, to supply the town. Fall to the town 120 feet. The capital of our company is \$25,000. A. R. VENABLE, JR., Prest.

EDWARDS, MISS, Jan. 29, 1887.

### Editor Manufacturers' Record:

A company has been organized with capital paid up. Creamery will be started as soon as house can be erected.

R. H. SMITH.

## To Erect a Large Building.

MONTGOMERY, ALA., Jan. 28, 1887.

### Editor Manufacturers' Record:

I am preparing to erect in Birmingham a building 100x182½ feet, on the corner of Fort avenue and 19th Street, running back to Morris Avenue. Will be heated throughout by steam, with two elevators. Will be five stories high. It will front on three streets. Work will be commenced soon, but architect says it will take 15 months to complete it.

J. MORRIS.

## Information Wanted.

TALLULAH, GA., Jan. 29, 1887.

### Editor Manufacturers' Record:

Can you inform me from whom I can get bobbin and shuttle machinery? and where can I get information as to the manufacture of bobbins and shuttles.

WM. BERRY.

## A Woolen Factory Wanted.

DE FUNIAK SPRINGS, FLA., Jan. 26, 1887.

### Editor Manufacturers' Record:

A woolen factory is wanted here. Our citizens and sheep-raisers will take stock in such an enterprise, but want practical men in charge. The raw material, wool and cotton, is produced here in abundance. The climate is healthy all the year, labor is cheap and the cost of living low. Persons interested may address me for particulars.

C. C. BANFILL.

CHATTANOOGA, TENN., Jan. 30, 1887.

### Editor Manufacturers' Record:

We are organizing a stock company for the purpose of manufacturing fence machines. Capital stock will be about \$100,000. Expect to be in operation in about six weeks.

LONGANECKER & McCULLUM.

## Developing Manganese Mines.

LYNDHURST, AUGUSTA COUNTY, VA., }  
Jan 27, 1887. }

### Editor Manufacturers' Record:

A company have leased about 10,000 acres in this county, belonging to the estate of John Wissler, and are now developing it for manganese. Jacob Wissler, one of the company, is manager. JACOB WISSLER.

BIRMINGHAM, ALA., Jan. 27, 1887.

### Editors Manufacturers' Record:

We are now purchasing the machinery necessary to operate one of the largest sash, door, blind and furniture factory south of Chicago. Our buildings are 60x400 feet, and are about complete and ready for the machinery, some of which we have already placed. Our main building is of brick. We expect to be in full operation by or before March 1, 1887. ENTERPRISE MFG. CO., W. H. MORRIS, Gen'l Man.

## Will Build a 4-Story Factory.

### Editor Manufacturers' Record:

NASHVILLE, TENN., Jan. 24, 1887.

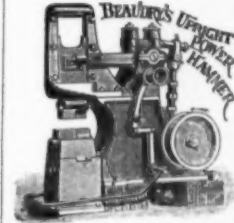
Our mill, as repaired, is entirely new; capacity about 40 M feet per day. We are largely interested in the Nashville Burial Case Co., a new corporation. Early in the spring we will build a 4-story brick factory and warehouse, 75x160 feet, for the above company, and will increase our capacity four-fold. Our box factory has about all it can do to keep up with its orders.

SOUTH NASHVILLE LUMBER CO.

MESSRS. GOODELL & WATERS, the well-known Philadelphia manufacturers of wood-working machinery, have issued a large "poster" illustrating a number of their tools, which will prove a very valuable reference for the use of both mill men and operators. It should be in every wood-working establishment—saw mills, planing mills, furniture factories, &c.—in the country. It will be sent free upon application to Messrs. Goodell & Waters, 3101 Chestnut street, Phila.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the MANUFACTURERS' RECORD.

## BEAUDRY'S UPRIGHT CUSHIONED Power Hammer, BY FAR THE BEST!



Blow accurate, powerful and elastic. Will increase the profits of any shop.  
70 Kilby St., BOSTON, MASS.  
Beaudry & Cunningham.

BERNHARD DIETZ, Manufacturer of Printers' Rollers, and Roller Composition. Factory, cor. Light and Mercer streets, Baltimore. Prices: Composition, bulk 30 cents per lb.; for Casting, also, 30 cents per lb. Orders by Mail promptly attended to.

## THE PERFECT HAND FIRE EXTINGUISHER



Is a Hand Syringe twelve inches long, containing one quart of a chemical fluid, which ABSOLUTELY EXTINGUISHES FIRE. It should be in every mill, factory, workshop, house or office, for instant use when fire breaks out. Every year thousands of houses are destroyed, which, in many cases, could have been saved if the means had been at hand for promptly checking the fire at the start. Fire losses for 1886 for United States and Canada were \$116,600,000. The PERFECT HAND EXTINGUISHER contains no acid; is not affected by heat or cold; never deteriorates from age; can be used by man, woman or child. One EXTINGUISHER is worth a dozen Hand Grenades, being more easily and certainly applied. Address,

J. H. WILSON MARRIOTT, Cor. Charles & Fayette Sts.

Price, \$12.00 Per Dozen.

BALTIMORE.

## NIAGARA STAMPING & TOOL CO. BUFFALO, N. Y.

MANUFACTURERS OF

## FOOT AND POWER SHEARING MACHINERY

AND

Presses and Dies for Working Sheet Metal.

Power Chopping Shears for Nail and Tack Plates, and for Cutting Steel for Cutlery, etc., Works.

## Tinners' Machines AND TOOLS OF ALL KINDS.

Corrugating and Curving Rolls for Roofing, Siding and Ceiling. Squaring, Circle, and Hand Shears. Send for our complete illustrated Catalogue and Price List, and Mention this paper.

## The HYATT PURE WATER SYSTEM.

Adapting Nature's Process—Endorsed by the Highest Authority.

### A Perfect Water Purifying System.

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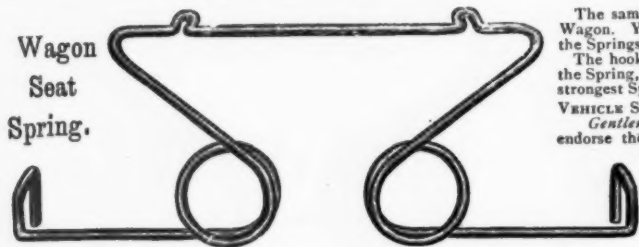
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The same Wagon can be used as an Express and Lumber Wagon. You can raise the end of your Wagon bed and put the Springs on or off at pleasure.

The hooks that fit the side of the Wagon bed are a part of the Spring, making the lightest, the most comfortable, and the strongest Spring on the market. These are a great improvement on the old style seat Spring.

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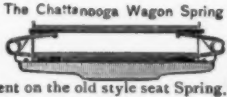
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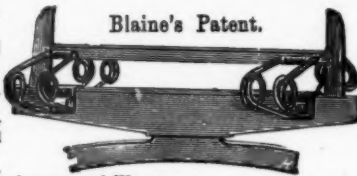
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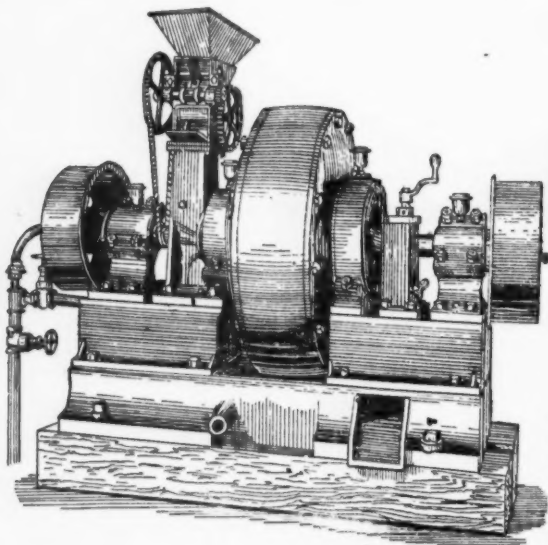
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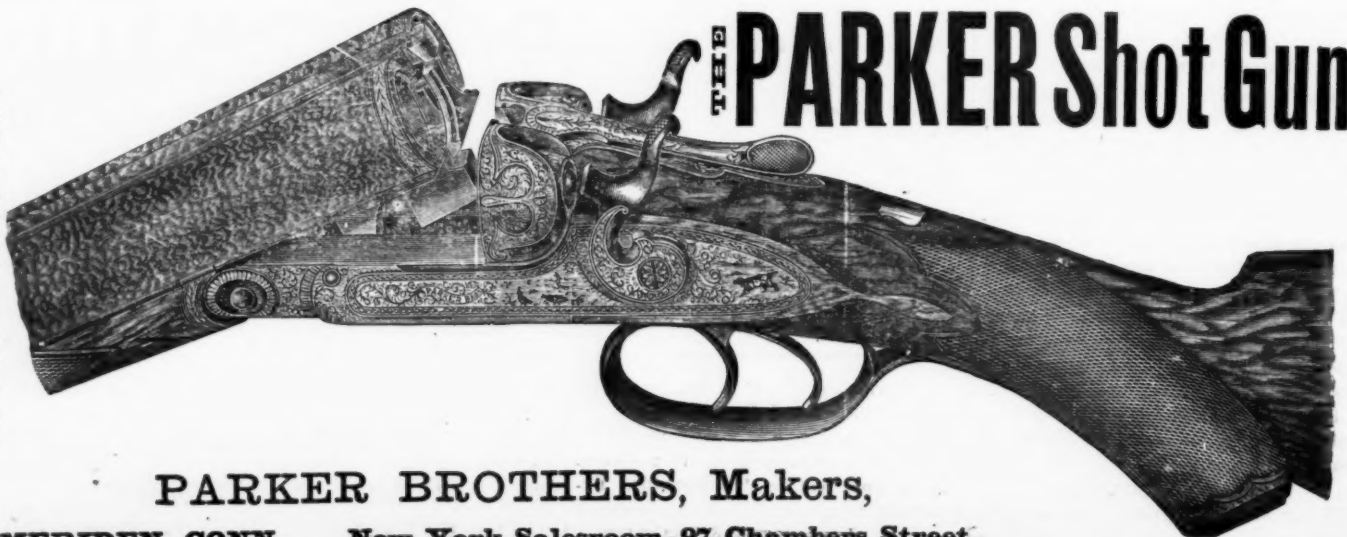
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Eagle and Vulcan.....	10 c. dis 20%
Wright's.....	9 1/2 c
Armstrong's Mouse Hole.....	10 c
Trenton.....	10 c
Wilkinson's.....	10 c
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Conn. Valley Mfg. Co.....	extra, 60¢ 10 ¢
Douglas Mfg. Co.....	No. 1, 60¢ 10 ¢ 5 ¢
Ives.....	dis 55¢ 10 ¢
Cook's Douglas Mfg. Co.....	dis 55¢ 10 ¢
Grissold.....	dis 55¢ 10 ¢
Patent Solid Head.....	dis 25 ¢
Russell Jennings' Auger, Dowell, Machine.....	dis 10¢ 10 ¢ 10 ¢
Dowell and Hand Rail Bits.....	dis 10¢ 10 ¢ 10 ¢
Ives' "Jennings" Bits.....	dis 40¢ 10 ¢ 10 ¢
Expansive Bits, Clark's small, 1 1/2; large, 2.....	dis 35 ¢
Expansive Bits, Ives.....	dis 45 ¢
Expansive Bits, Blake's.....	dis 45 ¢
Hollow Augers, Ives.....	dis 25 ¢
Hollow Augers, Douglas.....	dis 25 ¢
Hol. Aug., Bonney's Adjust.....	dis 40 ¢
Hol. Aug., Stearns' Adjust.....	dis 40 ¢
Hol. Aug., Ives' Expansive, each 1 1/2, dis 25 ¢ 10 ¢	
Hol. Aug., Universal Expansive, each 1 1/2, dis 25 ¢ 10 ¢	
Wood's.....	dis 25 ¢
Gimlet Bits.....	dis 50 ¢
Gimlet Bits, Diamond.....	dis 50 ¢
Double Cut Gimlet Bits, Shephardson's.....	dis 40 ¢
Double Cut Gimlet Bits, Douglass.....	dis 40 ¢
Double Cut Gimlet Bits, Ives.....	dis 50 ¢
Morse's Bit Stock Drill.....	dis 50 ¢
L'Hommedieu's Ship Augers.....	dis 15 ¢
<b>AWL MAPS.</b>	
Sewing Brass Ferrule.....	dis 50 ¢ gross—dis 40¢ 10 ¢
Patent Sewing, Short.....	dis 40¢ 10 ¢
Patent Sewing, Long.....	dis 40¢ 10 ¢
Patent Peg, Plain Top.....	dis 45¢ 10 ¢
Patent Peg, Leather Top.....	dis 45¢ 10 ¢
<b>AWLS, BRAD SETS, &amp;c.</b>	
Awls, Sewing, Common.....	dis 35 ¢
Awls, Shouldered Peg.....	dis 45 ¢
Awls, Patent Peg.....	dis 35 ¢
Awls, Shouldered Brad.....	dis 45 ¢
Awls, Handled Brad.....	dis 45 ¢
Brad Sets, Aiken's.....	dis 45 ¢
Brad Sets, No. 40, 50, 60, No. 45, 55, 65, dis 45 ¢ 10 ¢	
Brad Sets, Stanley's Exc. No. 1, 2, 3, 4, 5, dis 30¢ 10 ¢	
Brad Sets, Stanley's Exc. No. 2, 3, 4, 5, dis 30¢ 10 ¢	
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Collins & Co.....	dis 70¢ 10 ¢
Lippincott or Mann's.....	dis 75 ¢
Single Bit, 1/4 to 3/4 and under.....	dis 75 ¢
Single Bit, 1/2 to 6 and over.....	dis 75 ¢
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Double Bit, 1/2 to 6 and over.....	dis 75 ¢
Double Bit, beveled.....	dis 75 ¢
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Sheldon & Co., iron.....	dis 55 ¢
steel.....	dis 55 ¢
AXLE GREASE—Fraser's.....	dis 50 ¢
<b>BALANCES.</b>	
Spring Balances.....	dis 50 ¢
<b>BELLS.</b>	
Hand, Light Brass.....	dis 75 ¢ 10 ¢
Hand, White Metal.....	dis 70 ¢
Hand, Silver Chime.....	dis 25 ¢ 10 ¢
Hand, Globe (Cone's Patent).....	dis 25 ¢ 10 ¢
Gong, Abbe's.....	dis 25 ¢ 10 ¢
Gong, Yankee.....	dis 40 ¢
Gong, Barton's.....	dis 40 ¢
Leon Reading.....	dis 40 ¢
Pull, Brook's.....	dis 50 ¢ 10 ¢
Crank, Taylor's.....	dis 25 ¢ 10 ¢
Lever, Sargent's.....	dis 55 ¢ 10 ¢
Bloomfield.....	dis 20 ¢
Lever, R. & E. M. Co's.....	dis 45 ¢ 10 ¢
Call.....	dis 40 ¢
Cow, Common Wrought.....	dis 55 ¢ 10 ¢
Cow, Western, Sargent's List.....	dis 70 ¢ 10 ¢
Cow, Kentucky, Sargent's List.....	dis 70 ¢ 10 ¢
Cow, Moore's or Dodge's, Genuine Ky., new list:	
Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, dis 70¢ 10 ¢	
Cow, Texas "Star".....	dis 50 ¢ 10 ¢
<b>BELLOWS.</b>	
Blacksmith's Common.....	dis 50 ¢ 10 ¢
Molder's.....	dis 50 ¢
Hand Bellows.....	dis 50 ¢
<b>BLIND FASTENERS.</b>	
Francis.....	dis 20 ¢
Mackrell's.....	dis 20 ¢
Van Sand's Screw Pattern.....	dis 20 ¢
Van Sand's Old Pattern.....	dis 20 ¢
Merriman's.....	dis 20 ¢
Zimmerman's, 10 1/2 in.....	dis 30 ¢
Zimmerman's, 9 in.....	dis 30 ¢
<b>BLIND STAPLES.</b>	
Barbed, 1/4 in. and larger.....	dis 10 ¢
Barbed, 1/2 in.....	dis 10 ¢
<b>BLOCKS.</b>	
Penfield Blocks.....	dis 50 ¢ 10 ¢
Bagnall & Loud.....	dis 50 ¢ 10 ¢
<b>BOLTS.</b>	
Cast Iron Barrel Shutter, &c.....	dis 70 ¢
Cast Iron Chain (Sargent's list).....	dis 65 ¢ 10 ¢
Wrought Barrels.....	dis 70 ¢
Wrought Square.....	dis 70 ¢
Wrt. Shutter, all Iron, Stanley's list.....	dis 65 ¢ 10 ¢
Wrt. Shutter, Brass Knob, Stanley's list.....	dis 65 ¢ 10 ¢
Wrought Shutter, Sargent's list.....	dis 65 ¢ 10 ¢
Wrought Sunk Flush, Sargent's.....	dis 55 ¢ 10 ¢
Wrought Sunk Flush, Stanley's.....	dis 55 ¢ 10 ¢
Wrought B. K. Flush, Stanley's.....	dis 50 ¢ 10 ¢
Carriage and Tire, Common, new list.....	dis 75 ¢
Carriage and Tire, Philadelphia Pattern.....	dis 75 ¢
Carriage Bolts, Clarke's.....	dis 75 ¢ 10 ¢
Norway.....	dis 75 ¢ 10 ¢
R. B. & W. Carriage (old list).....	dis 75 ¢
Tire, American Screw Co's, Phila.....	dis 75 ¢
Tire, "Bay State".....	dis 75 ¢
Engle Philadelphia Tire Bolt.....	dis 80 ¢
Stove.....	dis 70 ¢
Plow.....	dis 65 ¢
Machine.....	dis 70 ¢ 10 ¢
Bolt Ends and Lag Screws.....	dis 70 ¢ 10 ¢
<b>BORAX.</b>	
90 lb net.....	dis 30 ¢
<b>BRACES.</b>	
Q. S. Backus.....	dis 40 ¢
Barber's.....	dis 40 ¢
Spofford's Patent.....	dis 50 ¢
Ive's Patent Braces.....	dis 50 ¢
Common Ball (American).....	dis 45 ¢
Amidon's.....	dis 40 ¢
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Sweet & Clark upright, 2.50 angular.....	dis 3.00 net
Lawrence.....	dis 3.00 net
Hubbard.....	dis 3.00 net

Phillips, with Augers.....	7.00	7.50.....net
<b>BRACKETS.</b>		
their, plain.....	dis 50¢ 10 ¢	
their, hancv.....	dis 50¢ 10 ¢	
<b>BRIGHT WIRE GOODS.</b>		
New list.....	dis 5¢ 10 ¢	
<b>BULL RINGS.</b>		
Union Nut Co.....	dis 55 ¢	
Sargent's.....	dis 60¢ 10 ¢	
Humason, Beckley & Co's.....	dis 70 ¢	
<b>BUTTS.</b>		
Wrought Brass.....	dis 80 ¢	
Cast Brass, Fast Joint.....	dis 35¢ 10 ¢	
Cast Brass, Loose Joint.....	dis 35¢ 10 ¢	
Fast Joint, Narrow.....	dis 60¢ 5 ¢	
Fast Joint, Broad.....	dis 60¢ 5 ¢	
Loose Joint.....	dis 70¢ 10 ¢	
Loose Joint, Japanned.....	dis 70¢ 10 ¢	
Loose Joint, Jap, with Acorns.....	dis 70¢ 10 ¢	
Parliament Butts.....	dis 70¢ 10 ¢	
Mayer's Hinges.....	dis 70¢ 10 ¢	
Loose Pin, no Acorn.....	dis 70¢ 10 ¢	
Loose Pin, Acorns.....	dis 70¢ 10 ¢	
Loose Pin, Acorns, Jap'd, Plated.....	dis 70¢ 10 ¢	
Tips.....	dis 70 ¢	
<b>Wrought Iron.</b>		
Fast Joint, Narrow.....	dis 65 ¢	
Fast Joint, Lt. Narrow.....	dis 65 ¢	
Fast Joint, Broad.....	dis 65 ¢	
Loose Joint, Broad.....	dis 65 ¢	
Table Butts, Back Flaps, &c.....	dis 65 ¢	
Inside Blind, Regular.....	dis 65 ¢	
Inside Blind, Light.....	dis 65 ¢	
Loose Pin, Wrt.....	dis 65 ¢ 5 ¢	
Loose Pin, Light.....	dis 65 ¢ 5 ¢	
<b>Spring Hinges.</b>		
Geer's Spring and Blank Butts.....	dis 30 ¢	
Hart Manufacturing Co.....	dis 30 ¢	
American Spring Hinge Co's.....	dis 30 ¢	
Gem Spring Hinges.....	dis 30 ¢	
Blind Butts, Shepard's, Nos. 50 and 60.....	dis 70 ¢	
Blind Butts, Shepard's, No. 50.....	dis 70 ¢ 5 ¢	
Blind Butts, Shepard's No. 75.....	dis 70 ¢ 10 ¢	
Blind Butts, Lull & Porter.....	dis 80 ¢	
Blind Butts, Huffer.....	dis 80 ¢	
Blind Butts, Standard.....	dis 80 ¢	
Standard Lull & Porter.....	dis 75 ¢ 10 ¢	
<b>BOW PINS.</b>		
Humason, Beckley & Co's.....	dis 55 ¢ 5 ¢	
Sargent & Co's.....	dis 55 ¢ 10 ¢	
Hotchkiss.....	dis 25 ¢	
<b>BUTCHER'S CLEAVERS.</b>		
Humason & Beckley Mfg. Co.....	dis 30 ¢ 5 ¢	
Bradley's.....	dis 25 ¢	
Beatty's.....	dis 40 ¢	
1.....	dis 16.50	
2.....	dis 19.00	
3.....	dis 21.50	
4.....	dis 24.00	
5.....	dis 27.00	
6.....	dis 30.00	
7.....	dis 33.50	
8.....	dis 36.50	
<b>CAN OPENERS.</b>		
American.....	dis 70 ¢	
New Idea.....	dis 70 ¢	
No. 4, French.....	dis 55 ¢	
No. 5, Iron Handle.....	dis 55 ¢	
Sardine Scissors.....	dis 55 ¢	
Sprague, No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, dis 33 ¢ 5 ¢		
<b>CAPS, PERCUSSION, 1.000.</b>		
U. M. C., F. C. trimmed.....	dis 50 ¢	
U. M. C., F. L. ground.....	dis 50 ¢	
U. M. C., Cen. fire ground.....	dis 50 ¢	
U. M. C., Double W. Proof.....	dis 50 ¢	
G. D. & S. B.....	dis 35 ¢	
E. B. 1-10, Eley's.....	dis 50 ¢	
Musket, in 1-10's.....	dis 55 ¢	
Hicks Ground Edge in Brass Boxes.....	dis 55 ¢	
<b>CARTRIDGES.</b>		
Rim.....	dis 60 ¢ 5 ¢	
Central Fire, pistol size.....	dis 40 ¢ 5 ¢	
"Military.....	dis 30 ¢ 5 ¢	
B. B. Caps, Round Balls.....	dis 1.00	
"Swaged Conical.....	dis 1.75	
<b>NEW LIST ON CARTRIDGES.</b>		
Rim-fire, 22 short.....	dis 15.00	
"32.....	dis 18.00	
"38.....	dis 18.00	
"41.....	dis 17.50	
Central Fire—32, 38, 41, 44, 47, 50, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99, 100, dis 19.00		
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Wool, new list, Aug, 1883.....	dis 10 ¢	
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Cast Steel, Polished.....	dis 50 ¢	
Cast Iron, Steel Points.....	dis 50 ¢	
Bullard's.....	dis 25 ¢	
<b>"ASTERS.</b>		
Bed.....	dis 55 ¢	
Plate and Shallow Socket.....	dis 55 ¢	
Deep Socket.....	dis 40 ¢	
Martin's Patent (Phoenix).....	dis 45 ¢	
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Humason, Beckley & Co's.....	dis 75 ¢	
Sargent's.....	dis 75 ¢	
P. S. & W.....	dis 50 ¢	
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German Halter and coil Chain.....	dis 60 ¢	
Trace, Breast and Fancy.....	dis 50 ¢ 10 ¢	
Oneida Halter Chain (old list).....	dis 45 ¢	
Galvanized Pump Chain.....	dis 60 ¢	
Jack Chain, Iron.....	dis 75 ¢ 10 ¢	
Jack Chain, Brass.....	dis 75 ¢	
<b>CHAIR.</b>		
White.....	dis 55 ¢	
Red.....	dis 75 ¢	
Blue.....	dis 75 ¢	
White Cravens.....	dis 130 ¢	
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Cotton Fish Lines.....	dis 40 ¢	
Cotton Chalk Lines, 50 feet:		
Nos. 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, dis 20 ¢		
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Socket Framing, Crossmans.....	dis 65 ¢ 5 ¢	
Socket Firmer, Crossmans.....	dis 65 ¢ 5 ¢	
Socket Framing & Firmer.....	dis 65 ¢ 5 ¢	
Socket, Douglas.....	dis 75 ¢ 5 ¢	
Socket, Ohio Tool Co.....	dis 75 ¢ 5 ¢	
Socket, Peck, Stone & Wilcox.....	dis 75 ¢ 5 ¢	
Socket, Corner.....	dis 75 ¢	
Tanged Firmer, Douglass.....	dis 40 ¢ 45 ¢	
Tanged Firmer, Butcher's.....	dis 50 ¢ 10 ¢	
L. Merrill's Socket and Framing Chisel.....	dis 65 ¢ 10 ¢	
<b>CLAMPS.</b>		
Iron, Screw, Eagle.....	dis 50 ¢	
Iron, Adjustable, Stearns.....	dis 100 ¢ 10 ¢	
Iron, Cabinet, Sargent's.....	dis 65 ¢ 10 ¢	
Iron, Carriage maker's, Carr & Crawley.....	dis 25 ¢	
<b>CLIPS, AXLE.</b>		
Norway or Best.....	dis 60 ¢ 5 ¢	
Superior.....	dis 45 ¢ 5 ¢	
Conestogo.....	dis 60 ¢ 10 ¢	
Coal Hods—Griffiths.....	dis 40 ¢	
<b>COCKS, BRASS.</b>		
Racking, new list.....	dis 55 ¢ 10 ¢	
Globe, new list.....	dis 55 ¢ 10 ¢	
Plain Bibbs.....	dis 55 ¢ 10 ¢	
Ale and Beer, new list.....	dis 55 ¢ 10 ¢	

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WITH NEW and IMPROVED FILTERING BEDS.

(See Cont.)



For Lake, River, Hydrant, Cistern or Rain Water. Natural Gravel and Sand, combined with expressly prepared recarbonized Charcoal.

We have made a valuable improvement in our Filter, it being now constructed so as to prevent any "dirt" or solid matter from entering the Filtering Bed proper, so that the Filter can never become clogged or foul. In fact, the water in this Filter is as pure before entering the Filtering Bed, as any other Filter (not charcoal) ever can make it. After that the action of charcoal renders the water chemically pure—something that charcoal filters alone can do. With ordinary care this Filter will last for many years; and whenever it may need repacking, we can furnish a New Filtering Vessel at about the price it costs to repack, thus saving considerable expense and trouble. Many different sizes and styles, with or without Water Coolers. Price-list, directions for use and book of testimonials sent free by mail on application. Liberal discounts to the trade.

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P. O. BOX 860.

Chicopee Falls, - MASS.

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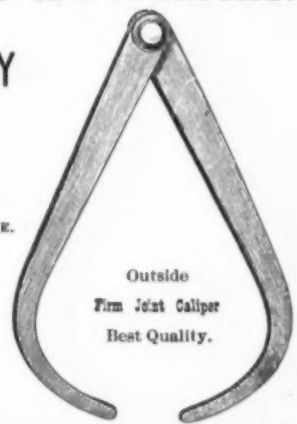
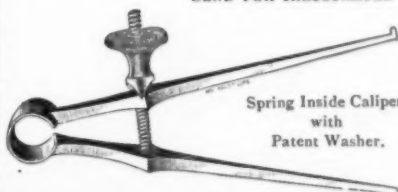
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Is the Favorite Everywhere.

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Crown, double action, with crank, 8 quart, \$10.50; 10 quart, \$12; 14 quart, \$16.50; 18 quart, \$21; 24 quart, \$28. With fly wheel, 8 quart, \$13; 10 quart, \$16; 14 quart, \$20; 18 quart, \$25; 24 quart, \$30; 30 quart, \$37.50. dis 60 %  
Star, double action, 2 quart, \$3.75; 3 quart, \$4.50; 4 quart, \$5.50; 6 quart, \$7; 8 quart, \$9; 10 quart, \$11; 14 quart, \$14. dis 60 %  
Gem, double action, 2 quart, \$3.75; 3 quart, \$4.50; 4 quart, \$5.50; 6 quart, \$7; 8 quart, \$9; 10 quart, \$11; 14 quart, \$14. dis 65 %  
Crown Ice Chopper..... dis \$7.50, dis 35 %

**KNIVES.**  
Carriage, (Jap'd So c gross).....dis 60&10 %  
Base-Common.....dis 30&10 %  
Hemlock, Three Knives.....new list, dis 10 %  
Door Mineral.....  
Door Por. Jap'd.....  
Door Por. Plated..... Same discount as Door Locks.  
Door Por.....  
Furniture Plain..... 75c gross inch, dis 10 %  
Furniture, Wood Screws.....dis 25 %  
Picture.....dis 6&10 %  
Hemlock, Picture.....dis 35 %  
Shutter, Porcelain.....dis 65 %

**LADIES.**  
Melting & Skim'ng, Monroe's Pat. # dor \$4.15 & 55 & 10  
Melting, C & C.....dis 30&10 %

**LAWN MOWERS.**  
Acme Buckeye, Easy & Excelsior, new list, dis 40&10 %

**LINES.**  
Linen Fish.....dis 50 %  
Wire Clothes, Galvanized, 100 feet.....dis \$3.00

**LOCKS AND LATCHES.**  
Cabinet, Eagle..... Changes made in list price  
Cabinet, Gaylord..... of some numbers Jan. 1,  
Cabinet, Bridgeport..... 1881, dis 25&2 %  
Cabinet, P. & F. Corbin.....dis 40 %  
Trunk, new list, Jan 1, 1881.....dis 15&2 %  
Yale Lock Co., Flat Key.....dis 40 %  
Plate.....dis 33&2 %

**DOOR LOCKS, ETC.**  
Bradford.....  
Norwalk.....  
Norwich..... List prices as revised  
P. & F. Corbin..... Dec. 18th, 45&5&2 %  
Russell & Erwin..... for cash.  
Mallory, Wheeler & Co.....  
Nimick & Brittan Mfg. Co.....  
Padlocks—Russell & Erwin.....  
Mallory, Wheeler & Co.....  
Norwich Lock Manf. Co..... dis 75 %  
Wm. Wilcox & Co..... and 25 for cash.  
Nimick & Brittan Mfg. Co.....  
Wm. Wilcox & Co's Plate Locks.....dis 33&2 %  
Yale Lock Manf. Co's "Standard".....dis 40 %  
Romer's.....dis 25&40 %  
Conestoga.....dis 80 & 10 %  
Scandinavian, "Norwich".....dis 50&10 %  
Nimick & Brittan's Burglar-Proof Locks.....dis 50&2 %

**MALLETS.**  
Penfield Block Co., Apple, Hickory and  
Lignumvitae.....dis 30 %  
Ripley Mfg. Co.....dis 30 %

**MEAT CUTTERS.**  
American \$5.00 \$7.00 \$10.00 \$12.00 \$15.00  
American, B, 50.00; 5, 60.00.....dis 30 %  
Dixon's (P. S. & W.) Nos. 1 3 4.....  
Perry's, Nos. 1 3 4 4 gr'd 5 gr'd  
Each.....\$3 5 11 13 36 dis  
Woodruff's (P. S. & W.) Nos. 100 150  
dis 25 %  
Hales'.....Nos. 11 12 13  
dis 45 %  
Kieser's No. 55.....dis 40 %  
Kieser's Gem.....dis 40 %  
Kieser's No. 82.....dis 40 %  
Kieser's Monarch.....dis 40 %  
Beef Shaver, (Enterprise Manf. Co.).....dis 20&10 %

**MOLASSES SATES.**  
Stebbins Patterns.....dis 70&10 %  
Stebbins Genuine.....dis 66&10 %  
Stebbins Tinned Ends.....dis 40&10 %  
Chase's Hard Metal.....dis 50&10 %  
Self-Measuring, (Enterprise).....dis 20 %  
Lincoln's Pattern.....dis 66&10 %  
Weed's.....dis 20 %  
Boss Nos. 1 2 3 4 5 6 7 8 9 10.....dis 20 %

**NUTS AND WASHERS.**  
Square Nuts 1/4 5-16 3/8 1/2 5/8 3/4 1  
Hexagon Nuts 1/4 5-16 3/8 1/2 5/8 3/4 1  
Washers 1/4 5-16 3/8 1/2 5/8 3/4 1

**OILERS.**  
Zinc and Tin.....dis 60&10 %  
Brass and Copper.....dis 50&10 %  
Malleable (Hammer's).....dis 10 %

**PINKING IRONS.**  
Per dozen.....70 cts. net

**PLATING MACHINES.**  
Astor Plating Machine.....each \$15, dis 20 %  
Crown Plating Machine.....dis 25 %  
6 in., \$6; 10 in., \$8 each.

**PLANES AND PLANE IRONS.**  
Meriden Malleable Iron Co., iron planes, dis 30&10 %  
Bench, First Quality.....dis 40 %  
Bench, Second Quality.....dis 50 %  
Molding.....dis 30 %  
Bailey's (Stanley R. & L. Co.) New list, Jan. 1879, dis 20&10 %

The Stanley (S. R. & L. Co.) new list,  
January 1879.....dis 20&10 %  
Bailey's.....dis 20&10 %  
Plane Irons, Butcher's.....\$5.00 to 10  
Plane Irons, Auburn Tool Co.....dis 20 %  
Plane Iron, Ohio Tool Co.....dis 20 %  
Plane Irons, Sandusky Tool Co.....dis 20 %  
Middlesex Mfg. Co., single and cut.....dis 20 %  
Middlesex Mfg. Co., double.....33&2 %

**PLIERS AND NIPPERS.**  
Button's Patent.....dis 30&10 %  
Hall's Pat. Compound Lever Cutting Nippers,  
No. 2, 3 in. \$13.50; No. 4, 7 in. \$21 dis 20&10 %  
Gas Pliers.....dis 50 %  
Acme Combined Plier and Wire Cutter, 1/4-inch,  
\$10; 6-inch, \$12; 8-inch, \$15; 10-inch, \$24. dis 50 %  
Acme Cutting Nipper, 12-inch, \$2.25; 11-inch, \$2;  
10-inch, \$1.75; 9-inch, \$1.50; 6-inch, \$1.25 each. 40 %

**PLUMES AND LEVELS.**  
Diston's.....dis 45 %  
Stanley R. & L. Co.'s Pat. Adjustable, dis 65&10 %  
Stanley R. & L. Co.'s Non-Adjustable, dis 65&10 %  
Chapin's Patent Adjustable.....dis 65&10 %  
Chapin's Non-adjustable.....dis 65&10 %  
Standard Rule Co.'s New Adjustable.....dis 65&10 %  
Standard Rule Co.'s Non-Adjustable.....dis 65&10 %  
Pocket Levels.....dis 65&10 %

**RAIL.**  
Sliding Door, Wrought Brass.....dis 35c. dis 20 %  
Sliding Door, Bronzed Wrt. Iron.....dis 35c. dis 35 %  
Sliding Door, Iron, Painted.....dis 35c. dis 30&10 %  
Barn Door.....inch.....dis 35c. dis 30 %  
Per 100 feet.....\$3.50 3.00 4.40-dis 10 %  
B. D. for N. E. Hangers— Small. Med. Large.  
Per 100 feet.....\$2.15 2.70 3.25 net.

**RIVETS.**  
Iron and Tinned, new list, Dec. 10, 1881.....dis 65 %  
In bulk, new list, Dec. 10, 1881.....dis 60 %  
Copper Rivets and Burrs.....dis 20&10 %  
Nos. 7 8 9 10 11 12 13 14 15  
dis 49c. 50c. 52c. 54c. 56c. 58c. 60c. 62c. 70c.  
RIVET SETS.....dis 50 %

**RODS.**  
Stair, Brass.....dis 25 %  
Stair, Black Walnut.....50c. dis 20 %

**RULES.**  
Boxwood. Ivory.  
Chapin's.....dis 80 % dis 50&10 %  
Standard.....dis 80 % dis 50&10 %  
Stanley.....dis 80 % dis 50&10 %  
Stevens & Co.....dis 80 % dis 50 %  
Stevens & Co. Miscellaneous.....dis 50&10 %

**SAD IRONS.**  
Self-Heating, Charcoal.....dis 9.00 net  
Mrs. Pott's Irons.....dis 35 %  
Enterprise Star Irons, new list, July 20, '81.....dis 35 %  
Comb'd Fluter and Sad Iron.....dis 15 %  
Common Sad Irons.....dis 15 %

**SAND PAPER.**  
Baeder & Adamson's Flint, 000 1 1/2 \$4.50 2 1/2 \$5.00 3 1/2 \$5.50 4 1/2 \$6.00 5 1/2 \$6.50 6 1/2 \$7.00 7 1/2 \$7.50 8 1/2 \$8.00 9 1/2 \$8.50 10 1/2 \$9.00 11 1/2 \$9.50 12 1/2 \$10.00 13 1/2 \$10.50 14 1/2 \$11.00 15 1/2 \$11.50 16 1/2 \$12.00 17 1/2 \$12.50 18 1/2 \$13.00 19 1/2 \$13.50 20 1/2 \$14.00 21 1/2 \$14.50 22 1/2 \$15.00 23 1/2 \$15.50 24 1/2 \$16.00 25 1/2 \$16.50 26 1/2 \$17.00 27 1/2 \$17.50 28 1/2 \$18.00 29 1/2 \$18.50 30 1/2 \$19.00 31 1/2 \$19.50 32 1/2 \$20.00 33 1/2 \$20.50 34 1/2 \$21.00 35 1/2 \$21.50 36 1/2 \$22.00 37 1/2 \$22.50 38 1/2 \$23.00 39 1/2 \$23.50 40 1/2 \$24.00 41 1/2 \$24.50 42 1/2 \$25.00 43 1/2 \$25.50 44 1/2 \$26.00 45 1/2 \$26.50 46 1/2 \$27.00 47 1/2 \$27.50 48 1/2 \$28.00 49 1/2 \$28.50 50 1/2 \$29.00 51 1/2 \$29.50 52 1/2 \$30.00 53 1/2 \$30.50 54 1/2 \$31.00 55 1/2 \$31.50 56 1/2 \$32.00 57 1/2 \$32.50 58 1/2 \$33.00 59 1/2 \$33.50 60 1/2 \$34.00 61 1/2 \$34.50 62 1/2 \$35.00 63 1/2 \$35.50 64 1/2 \$36.00 65 1/2 \$36.50 66 1/2 \$37.00 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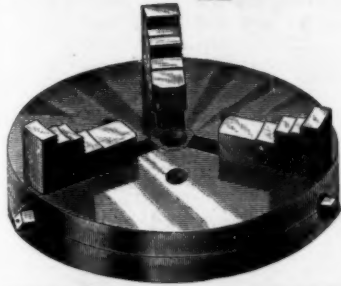
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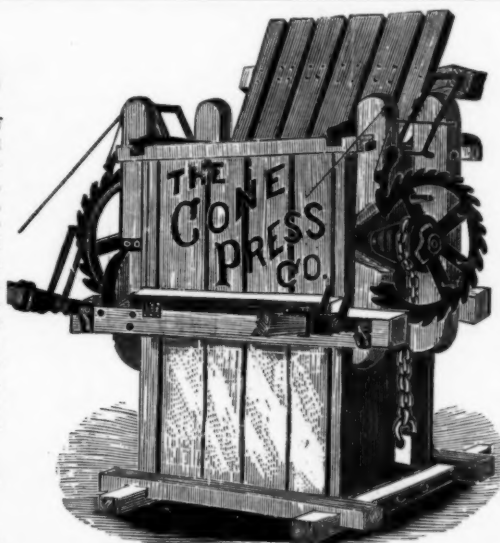
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This company is the pioneer in throwing down the bars of unjust discrimination against women in life insurance. Statistics and common observation prove mortality to be in favor of females at every age, and married as well as single. To remove this prejudice, and to secure to women an equal estimation in her insurability, the promoters of this enterprise have devoted themselves. Consistently with this principle WOMEN AND MEN are equally insured in this company without discrimination on account of sex.

**ITS MEMBERSHIP**

comprises persons between the ages of 16 and 60, of approved physical condition. The Life Class is separate and distinct from the Accident Class, members being liable for losses only occurring in the class to which they belong.

**ITS PLAN**

secures insurance at cost, and embraces the best features of similar associations, with such improvements added as enlightened experience has shown to be desirable for the member's advantage and the security of the association.

**ITS SAFETY AND SECURITY** consists in its **ECONOMICAL** system, its **IMPOSSIBILITY** of insolvency, and its **SECURITY RESERVE FUND.**

**FINALLY.**

This company avoids complicated schemes and plans by means of which impossible results are promised. Its contracts are plain, easily fulfilled and liberal. It issues the following forms:

1. Ordinary Life Policy, \$100 to \$10,000.
2. Ordinary Accident Policy, \$5,000 death indemnity; \$25 weekly.
3. Combined Life and Accident Policy.
4. \$500 Savings Bond.

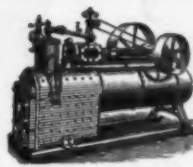
BANKERS:  
BANK OF THE METROPOLIS, New York City.  
DEPOSITORY OF RESERVE FUND:  
FARMERS' LOAN AND TRUST CO., New York City.

The officers would be pleased to furnish any further particulars which may be desired in relation to the Company's affairs, or the way to obtain a policy.

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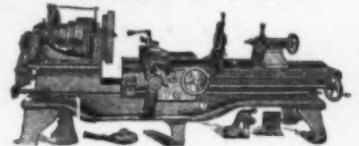
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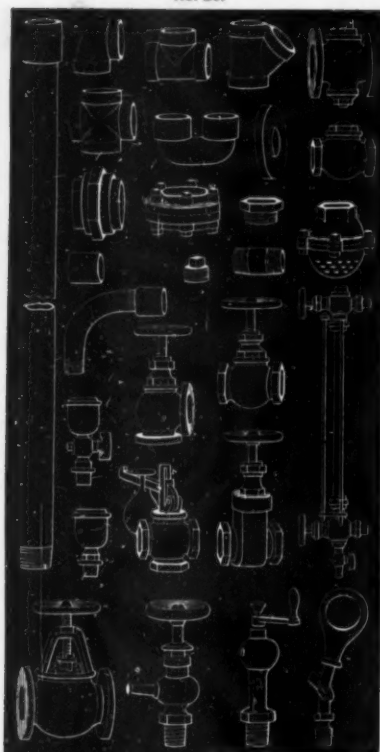
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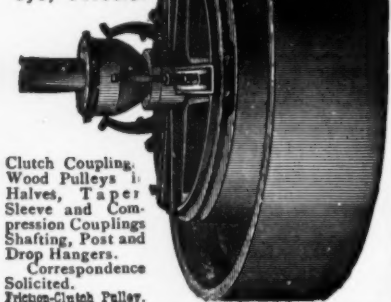
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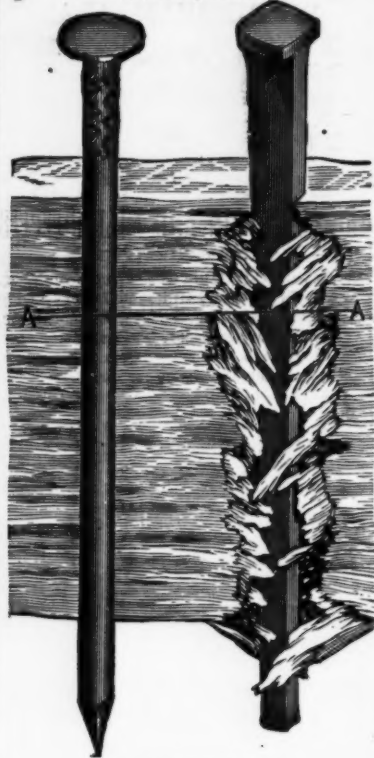
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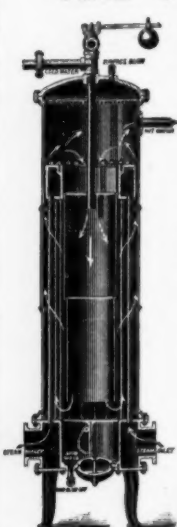
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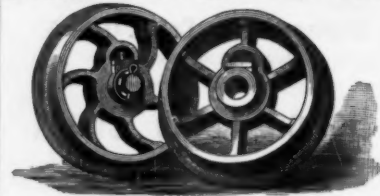
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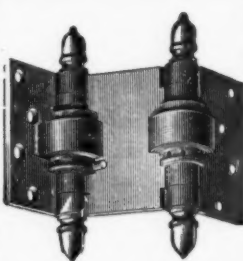
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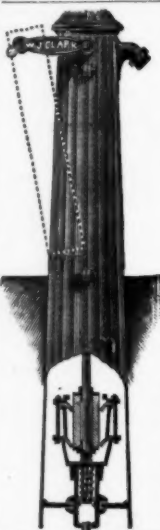


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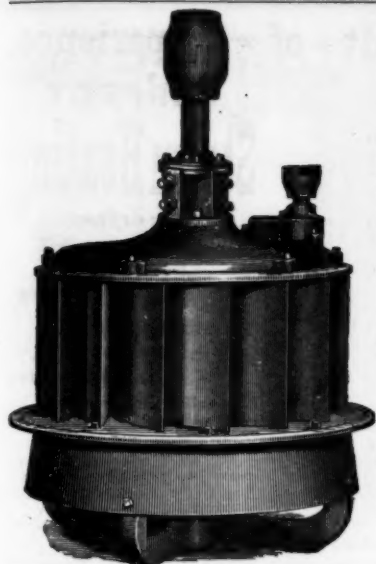
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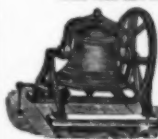
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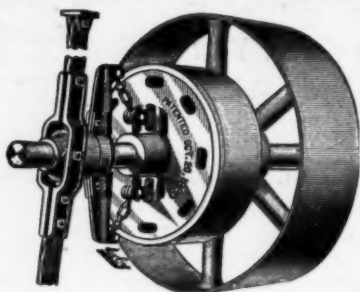
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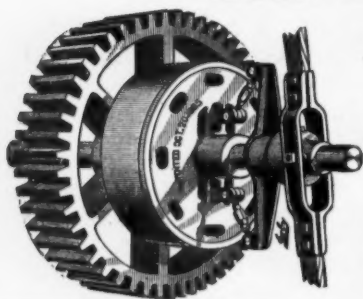
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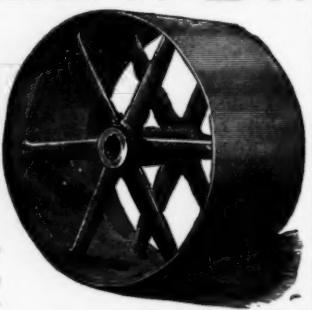
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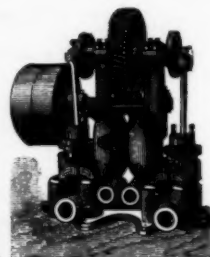
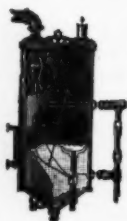
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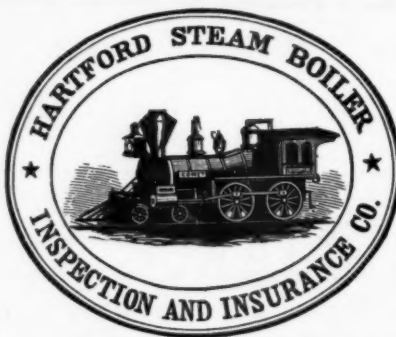
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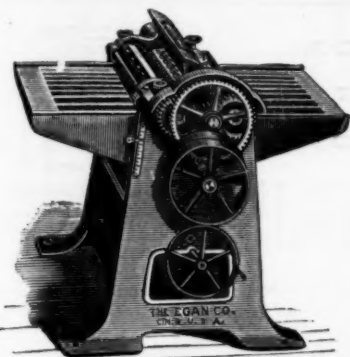
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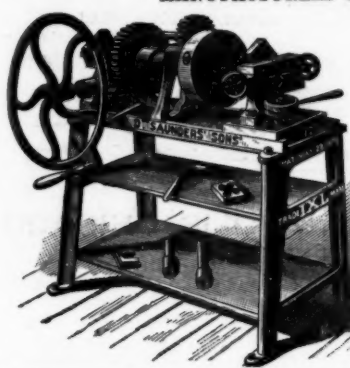
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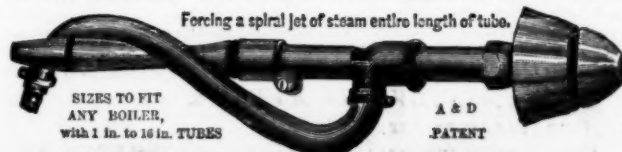
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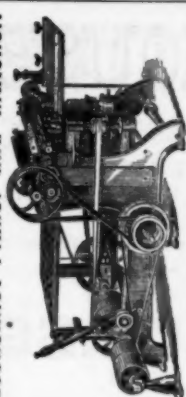
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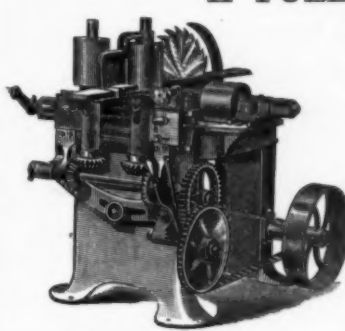
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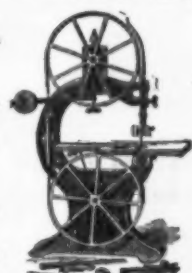
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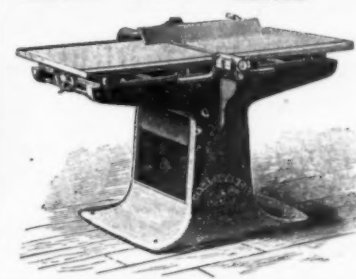
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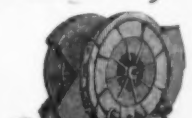


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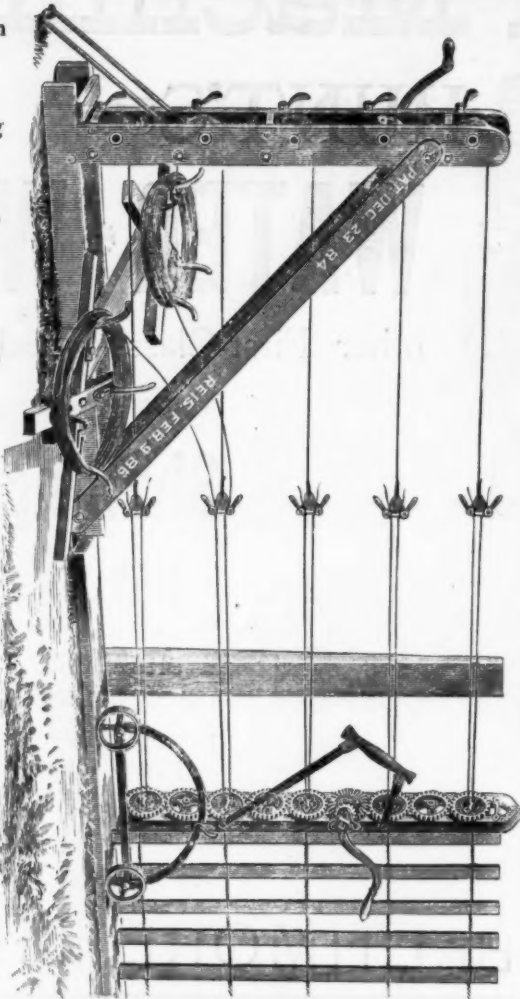
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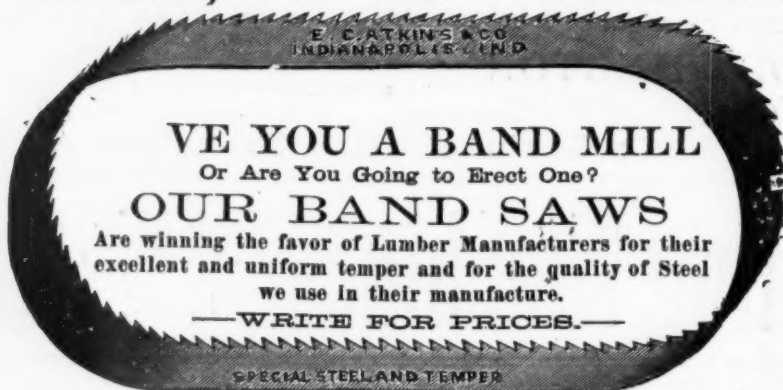
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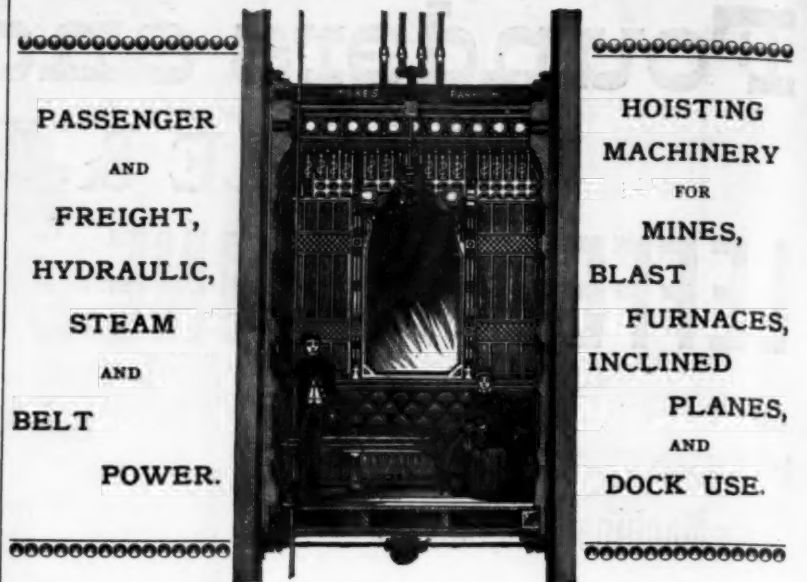
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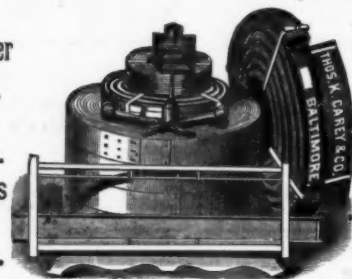
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